

# THE NATIONAL PROVISIONER

NEW YORK AND CHICAGO

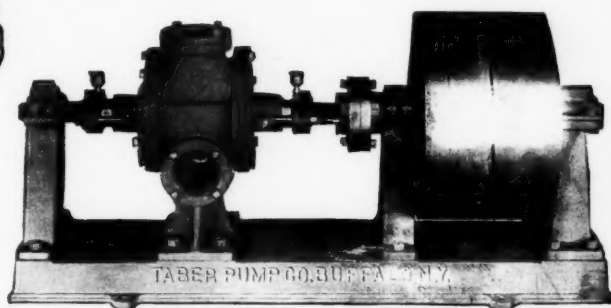
PUBLISHED EVERY SATURDAY

SEPTEMBER 16, 1916

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# THE NATIONAL PROVISIONER

OFFICIAL ORGAN OF THE AMERICAN MEAT PACKERS' ASSOCIATION

PUBLISHED EVERY SATURDAY

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No. 12.

## PLANS FOR PACKERS' CONVENTION.

Preparations for the eleventh annual convention of the American Meat Packers' Association, at Cincinnati, O., October 9, 10 and 11, are nearing completion. This is the first time the convention honors have gone to the original Porkopolis, and that well-known "Cincinnati bunch" is making the most elaborate arrangements to entertain the visitors.

The Cincinnati members from the beginning were among the most active and enthusiastic members of the association. The veteran General Michael Ryan of Cincinnati was the first president of the association, and the Cincinnati delegation was always among the largest attending the annual meetings.

Now that the annual gathering is to be held in the home of this lively bunch of packers, a big time in every sense of the word is expected. General Ryan, who has been unable to attend recent conventions, will be there and will get an old-time ovation. The convention business sessions will move with a snap and a go, and the entertainment programme is being mapped out as only that Cincinnati crowd of good fellows knows how.

The convention sessions and the great annual banquet will be held at the Hotel Sinton, one of Cincinnati's finest hostleries. There will be the usual convention "smoker," and a boat trip on the Ohio River for the third day is promised to contain some big surprises. The details of the programme will be announced in a short time.

Interest throughout the trade in this year's convention is very general, and indications point to a very large attendance. The Cincinnati local committees handling the convention arrangements are as follows:

Executive Committee.—Chas. E. Roth, chairman; Armin Sander, Joseph Ryan, Harry E. Maescher, George Zehler, Sr.

Committee on Banquet.—Joseph Ryan, chairman; Robert West, Jr., Armin Sander.

Committee on Smoker Vaudeville.—Roland Meyer, chairman; Charles Riley, Jr., Charles Buehler.

Committee on Boat Trip.—George Zehler, Sr., chairman; Frank Folz, Stephen Hauser.

Committee on Souvenirs.—Henry Moellering, chairman; Albert Rassenfoos, Nick Jansen.

Committee on Finance.—Elmer Schroth, chairman; Louis Wiederstein, Oscar Hoffman.

Committee on Music.—John Hoffman, chairman; Joseph H. Hewetson, George Lohrey.

Committee on Local Publicity.—Louis Kahn, chairman; Charles Heckle, Claude Ritter.

Committee on Programme.—Jacob Vogel, chairman; Wm. A. Hopkins, Ramond Meyer.

Committee on Speakers.—Ernest Freund, chairman; Wm. Geringer, P. C. Löffel.

Committee on Display Rooms, Booths and Directions.—Leo Blum, chairman; George Greishaber, George Zehler, Jr.

## AUSTRALIAN MEAT SUPPLY CUT BY DROUGHT

### War Conditions Also Hamper the Industry to a Great Extent

(Special Correspondence of the National Provisioner.)

Brisbane, Queensland, August 15, 1916.

The great losses in livestock during the recent drought in Australia are reflected in the figures showing the export trade in meat during the year which ended on June 30 last. In two years there was a reduction of over seventeen millions in sheep and nearly two millions in cattle in the principal states which have an export trade—New South Wales, Victoria, South Australia and Queensland. And last year, as a result, the export trade showed a falling-off of nearly two and a half million carcasses of mutton, or 81 per cent. as compared with the previous year, 1914-15; nearly a million and a half carcasses of lamb, or 78 per cent.; and 1,146,000 quarters of beef, or 55 per cent.

The severity of the times is illustrated by the fact that South Australia had no export trade and that Victoria had only a small trade. The whole of the output, except small consignments, went to the United Kingdom, or at any rate to the order of the Imperial Government.

All packing plants are in operation in Australia, and as fast as possible meat is being prepared for export. In ten days recently in Queensland the State Government despatched 13,000 tons of meat, estimated to be worth \$3,000,000, to the order of the Imperial Government. It has been stated that the home government has asked Queensland to reserve all meat not required for local consumption until the end of the year, when supplies are expected to drop off.

Much delay has taken place in the completion of the plant at Darwin for Vestey Bros. This firm has already spent \$1,500,000 on the plant, and has other plans that will involve an expenditure of \$1,000,000 more. It is expected that the plant will be ready to begin operations on April 1 of next year. The buildings have been built of steel and concrete, and are on the most approved principles.

A packing plant is being erected by the Government of Western Australia in its northern district, at Wyndham. It is expected that these works will not be ready until late in 1917. In New South Wales Angliss and Co. Proprietary, Ltd., are enlarging works at Forbes, recently purchased by them.

### Slaughter of Cows and Calves is opposed.

The value of livestock is directing much

attention to the question of slaughtering female stock. It is noticed that an inordinate proportion of the cattle sold through the yards are female. One explanation of this is that a number of dairymen are going out of business, through becoming discouraged by the action of the Labor Governments in fixing the prices for dairy produce at lower rates than they can afford to run their dairies. A bill to prevent the slaughter of female and immature cattle is promised in all the State Parliaments.

Another subject of interest is the existence of worm nests, or nodules in cattle. Owing to the objection raised by the Imperial Government some years ago the briskets have to be removed before export. There is now an agitation to get the Imperial Government to waive this regulation on account of the large amount of beef that must be cut off carcasses before export.

In Queensland considerable trouble has been experienced at the plants owing to the attitude of some of the employees in objecting to rush work. This is popularly known in this country as a "lazy strike." The butchers paid on piece rates at one plant had been putting through more carcasses than the freezers, paid on time rates, had been able to handle. The freezers consequently slowed down, so that the butchers soon overtook them and had to hold off now and again. This has been the cause of much inconvenience. In another case the men loading the boats adopted a somewhat similar attitude, and at least one boat had to leave short-shipped. As a result of the trouble in the works the employees obtained substantial increases in wages.

### Australian Meat Inspection Now National.

The inspection of meat for export in Australia has hitherto been undertaken in some States by State officers under Federal control, and in other States under Federal control. The system has been made uniform, the Commonwealth Government having taken over supervision in all the States. Inspection will now take place of live animals, then of the carcasses, and then the frozen meat as it goes on board the ship. Each piece of meat must bear the Commonwealth export brand.

Nothing further has been heard of an application by some owners of horses for permission to slaughter them and export horse-flesh.



Much agitation has taken place in Australia over the fact that the prices for Australian meat in London are considerably under the quotations for Argentine beef. This is put down to steps taken in Great Britain to control prices, and while it is considered fair by Australians to control rates in the interests of the Imperial Government, it is held that it is not fair to penalize Australians.

Suggestions have been made that the Imperial Government should assume some control over "free" shipments of meat to Great Britain, so as to bring them into line with Australian meat shipped to the order of the Imperial Government. Australian meat men are becoming restive, as it is contended that the Argentine shippers have a great advantage, not only in the markets in England, but in getting a footing in Continental markets, whereas the Australian shipper is compelled to ship direct to Great Britain.

#### The Situation in New Zealand.

In New Zealand the freezing season for export has been concluded. The quantity of beef put through was greater than usual, but there was a reduction in the quantity of mutton and lamb. The shortage of beef from Australia has stimulated the Dominion trade, and the quantity sent away this year has nearly doubled the quantity shipped in the previous year, 1914-15.

In New Zealand the question regarding

female cattle and young stock is also being raised, and it is suggested that steps should be taken to prevent this trouble.

One of the most interesting events in the meat trade was the opening recently of works at Westfield, Auckland, in which Vestey Bros. are said to have a controlling interest. In officially opening these works the Prime Minister uttered a warning against the unnecessary destruction of young female stock.

In view of the enforcement of compulsory military service much discussion is taking place in New Zealand regarding the effect on the trade if a number of men of military age are withdrawn for service.

The Canterbury Frozen Meat Company has paid a dividend of 3 per cent. on preference shares and 4 per cent. on ordinary shares for the half year.

The refrigerated space in New Zealand has been largely increased since the previous season, but most of the stores are now full, and already some of the works are proposing to make additions.

**EDITOR'S NOTE.**—This is the thirty-ninth in a series of articles from The National Provisioner's special correspondent in Australia, which country is the latest to be considered as a possible source of meat supplies for the United States. Since the indications have increased that Argentina would be unable to meet all demands of Europe and this country, Australia has been turned to as a possible solution of the problem. The war has, of course, altered and complicated the situation. The National Provisioner's representative there will endeavor to keep the trade posted.]

## MEAT SITUATION IN THE UNITED STATES

### Production, Consumption and Prices as Shown by Statistics

By George K. Holmes, U. S. Bureau of Crop Estimates.

(Continued from last week.)

**EDITOR'S NOTE.**—This report, the most important result of the appointment of the Galloway Commission several years ago, was summarized in a recent issue of The National Provisioner. Showing, as it does, that meat production has not kept pace with consumption, it will be of the greatest interest to producers and consumers alike.]

#### CATTLE—COMPARISON OF COUNTRIES.

##### Number of Cattle.

The 40 countries for which the number of cattle is given for varying periods of time do not include China, British India, the Turkish Empire, and many small countries that possess comparatively few cattle.

The United States is clearly the leading country of the world in number of cattle. The farms and ranges of 1916 possessed 61,441,000 cattle. If also the cattle not on farms and ranges, nearly 2,000,000, as found in 1910, are added, the total number of cattle in the United States in 1915 is about 63,500,000. According to the latest information, the Russian Empire possesses 52,000,000 cattle, and far below that country is Argentina with 29,500,000 cattle. An official estimate of cattle gives Brazil 30,700,000, but this may be excessive. Germany's in 1913 numbered 21,000,000, France's 15,000,000, the United Kingdom's 12,000,000, and Australia's 11,500,000. No other country of the 40 possesses as many as 10,000,000 cattle, unless Austria and Hungary are combined, the total for both of these subdivisions of the dual empire being 16,500,000.

An important general fact appears upon an examination of the record of the number of cattle in the various countries for recent years, say since about 1907, and this general fact is that in most of the countries the number of cattle in these recent years is

about stationary; in a much smaller list of countries, now (1916) including the United States, the number of cattle is increasing; and in Canada the number of cattle is decreasing.

The more prominent countries in which cattle are increasing are the United States, in 1916, after half a dozen years of sharp decline, Asiatic Russia, and Uruguay, and among the less important countries are Denmark, Madagascar, and the Netherlands. Possibly New Zealand should be in this list. The least important countries in this list at the present time are British East Africa, British South Africa, and German East Africa. In no other countries in the world, as far as is ascertained, are cattle increasing in number.

It is not always easy to form a judgment as to whether cattle are increasing or diminishing or remaining stationary in number, but approximately it appears that a stationary condition exists in the important countries of Argentina, Australia, Austria-Hungary, France, Germany, the United Kingdom, and possibly European Russia. The countries of less importance in this list are Algeria, Belgium, Bulgaria, Chile, Cuba, Finland, Greece, Paraguay, Serbia, Spain, Sweden and Switzerland.

##### Per Capita Cattle.

Countries that possess a certain order of importance in number of cattle do not retain that order when the number of cattle per capita of the population is considered. It is to be remembered that the countries differ in meat production per head for the same general kind of animals.

According to the best information, the leading country of the forty in number of cattle per capita of the population is Uruguay, with 7.9 head of cattle in 1908. Next in order stands Paraguay with 4.4 cattle, Argentina with 3.6 cattle, Australia with 2.4 cattle, Venezuela with 2.2 cattle, and New Zealand with 2 cattle.

In a group below the foregoing stand: Madagascar with 1.7 cattle, Columbia with 1.27 cattle, Brazil with 1.23 cattle, Cuba with 1.21 cattle, and British South Africa with 1.18 cattle. The countries in the group of those possessing one-half to 1 animal are, in order: Denmark with 0.83 of 1 animal, Canada with 0.75 of 1 animal, the United States (1916) with 0.60 of 1 animal, Asiatic Russia and Chile with 0.54 of 1 animal, and Finland with 0.51 of 1 animal. All other countries of the 40 not mentioned above possess less than one-half of 1 animal per capita of the population.

The general decline of cattle in recent years in absolute numbers throughout the world is accentuated when comparison is made with population. In only a few countries, most of them relatively unimportant, except the United States (1916), are cattle increasing per capita of population. These are the United States (1916), Uruguay, possibly Asiatic Russia, Madagascar, Denmark, British East Africa, British South Africa, and German East Africa.

The list of countries in which the per capita cattle are decreasing contains many important ones, and in this list are Argentina, Australia, Austria, Bulgaria, Canada, Cuba, Germany, New Zealand, European Russia, and Serbia.

The list of countries in which the per capita ratio of cattle remains about the same in recent years is a longer one than either of the two foregoing ones, and includes Algeria, possibly Hungary, Belgium, possibly Chile, Finland, possibly France, possibly Greece, Japan, the Netherlands, Norway, Paraguay, Spain, possibly Switzerland, and the United Kingdom.

(To be continued.)

#### AUGUST OLEO OUTPUT AT CHICAGO.

The oleomargarine output for the Chicago district for the month of August, 1916, was 7,410,780 lbs. uncolored and 213,810 lbs. colored, a total of 7,624,590 lbs. This was over a million and a half pounds more than the preceding month. Compared to a year ago, it was a million and a quarter pounds more. Production of renovated butter in Chicago in August totaled 860,799 lbs., compared to 586,440 lbs. in July.

Oleomargarine production in the Chicago district by months for the past year is as follows:

	Pounds.
August, 1915	6,379,572
September	6,862,642
October	8,417,380
November	8,025,175
December	8,914,978
January, 1916	8,132,537
February	8,629,735
March	10,159,141
April	9,741,393
May	9,093,366
June	7,895,272
July	6,070,928
August	7,624,590

Bargains in equipment may be obtained by watching the "For Sale" department, page 48.



## GLUE IMPORTANT PACKINGHOUSE BY-PRODUCT

### How This Product Is Made and What It Is Used For

(Copyright, 1916, by Armour & Co. Reproduced by permission from the Armour Magazine.)

If one arranged the many valuable by-products derived from the packing industry in order of their importance among the front ranks would be found that unpretentious but wonderfully useful commodity, glue. Without this manufactured "stick-to-itiveness" the world would disintegrate; very few of the laity know how generally and indispensably useful it is.

The calamity of calamities would be to suddenly eliminate all glue from the structure of things. Anyone who even attempted such an act would be an enemy of the race and deserving of being "shot on the spot." For the world would literally tumble down about our ears.

The chairs in which we were sitting would drop to pieces, the paper would come off the wall, and our straw hats would be limp masses without form or comeliness. Something tragic would have happened to our shoes, and when we went to light our cigars we should find the matches "hoo-dooed." A catastrophe would have struck our books on the shelves and a magic change would have been accomplished in almost everything about us.

So we must have glue to complete our comfort and well-being, and the better glue it is the more stable our security and orderly peace of mind. As ultimate consumers we buy very little of the commodity, generally speaking, but the better the glue purchased by the scores of arts and industries in which it plays an important part, the better for us and the better for those industries.

It is safe to say that not many people even surmise the many uses of the commodity. A list issued by the Armour Glue Works is here reproduced, as a bit of enlightenment, showing the classes of trade that use glue.

Not only is glue an important product because of its general usefulness, but it ranks high in value as a revenue bringing by-product of the packing business. According to the census of 1909 nearly \$14,000,000 worth of glue was being manufactured yearly in the United States. Glue manufacturing, with its allied industries, which will be mentioned later, utilizes great quantities of the products of the killing floors.

There is no better example of what is meant by saving of "waste material" so called, through the manufacture of by-products, than that afforded by the Armour Glue Works. This establishment is a conspicuous conservator of material resources.

#### Bone Glue and Hide Glue.

In speaking about glue, a distinction is always made between what is known as "bone glue" and what is known as "hide glue." This is the first broad division. Within these two classes there are, of course, many grades.

It is a grossly mistaken idea to think that "glue is just glue" any more than that "soap is soap." The glue which is suited to the needs of a cabinet-maker is not the same glue which a calciminer would use. Hard wood requires a stronger glue than soft wood. Fine bookbinding in high grade leather is an entirely different matter from

cheap paper-cover binding, and accordingly calls for a different grade of glue.

These few instances are given to emphasize the fact that glue is a product of different kinds and grades and that the careful manufacturer or artisan cannot afford to select his glue at random and without taking into consideration the kind and quality of work which he expects it to perform.

With this general statement let us proceed to note a few things regarding the manufacture of the two principal classes—"bone glue" and "hide glue."

#### Preparation of Bone Glue.

The raw material for bone glue consists of pigs' feet (that portion which one often sees in the form of pickled pigs' feet) cattle heads, cattle feet, sheep and calves' heads and feet, jaw bones, rib bones, sirloin bones and shoulder blades.

The larger pieces like the heads and rib bones are first broken up to facilitate handling and treatment.

The first important step is the washing. All the blood must be thoroughly cleansed away. Then the material is bleached, a step which makes the resultant glue lighter in color and which acts as a preservative. More washing follows the bleaching and must be kept up until all the bleaching material is removed, a process which takes forty-eight hours.

It must not be supposed that all the raw materials named above are lumped together. The different kinds are treated separately, and different apparatus is used for the washing. But in all the washing process some sort of mechanical agitation is applied and the processes are kept up for a number of hours to insure a perfect cleansing.

This is as good a place as any to state that he who thinks a modernly conducted glue works is a place of filth and foul odors has an entirely erroneous idea.

#### In the Cooking Vats.

After the washing and bleaching and re-washing, the material is put into the cooking vats where it is gently boiled in water. The vats are equipped with false bottoms under which are steam pipes resting on the true bottoms. The necessary heat is supplied by these steam pipes. The liquid contents of the vat can pass from one compartment to the other through the holes in the false bottom, but the solid contents are kept away from the steam pipes, and thus burning or scorching is prevented.

This boiling process accomplishes several things. If the contents of the vat consist of knuckles or cattle feet, neatfoot oil is released, and, rising to the top, is skimmed off as a by-product of glue-making. From beef bones, tallow is secured in like manner, and from pigs' feet is obtained what is known as pigs-foot stock.

Then there is the "glue liquor," which is left when the tallow and oil are removed. Glue liquor is simply the gelatinous substance which is extracted by boiling, from the bone tissue. One meets it sometimes in soup when the soup bone has been boiled too vigorously. It belongs to the same family as gelatin which is produced in a

similar manner from edible material and refined by further processing.

After the glue liquor has been drawn off, more water is added and the solid material in the vat is subjected to another boiling. This is repeated several times, and the glue is graded accordingly, the first drawing furnishing the strongest glue.

Some of the raw material, instead of being boiled in the open vat, is put into closed vessels and boiled under pressure. This method produces a different grade of glue from that described above.

#### Through the Filter Mass.

The glue liquor is taken to copper filters where it is passed through a "filter mass" of cotton fibre and then it is put into vacuum pans, where a certain percentage of the moisture is boiled out. One important object of the glue maker is to avoid over-boiling, as this reduces the strength of the glue, and for this reason the vacuum process of reducing the water content is used, since it can be accomplished at lower temperature than by boiling in the open.

Next the glue liquor is passed through a congealer, an ingenious device which cools the glue by means of cooling pipes, causes the glue to set just as jelly sets, and delivers it onto a moving belt in the form of large thin sheets. The sheets are put onto frames of wire netting and placed in a strong draft where they are dried. With this the glue is a finished product and needs only to be broken up or ground, as the case may be, and put into containers for shipment.

There is still another method of making bone glue, which, in principle, is the reverse of the process just described. Instead of boiling out the glue, leaving the mineral matter of the bones as a residue, the mineral matter may be dissolved out, leaving only the ossein or gelatinous substance as the residue. This is accomplished by treating raw bones such as skulls, jaws and knuckles with dilute muriatic acid. The ossein thus obtained is practically all glue, and it yields no by-product in the further processing.

#### The Making of Hide Glue.

Hide glue is made differently. The raw material for what is known as hide glue consists of hide and skin trimmings, "fleshings," which are scraped from the inside of skins and sinews.

These materials are subjected to a liming process, fleshings requiring about two weeks and the other materials about three months, during which time the liming vats are carefully watched and the lime is changed several times. The liming process softens and swells the material and by this means facilitates the extraction of the glue in the boiling vats.

After the liming, the material is bleached and washed, and then treated much the same as bone glue. The boiling releases the gelatinous substance in the tissues just the same as it does that in the bones, and by-products of brown and yellow grease are obtained.

#### By-Products of Glue Making.

Mention has been made of the allied industries that are associated with the process of glue manufacturing. These consist of producing the by-products, some of which have already been named.

These by-products are an important part of the out-put of the glue works. The glue

(Continued on page 42.)

# PRACTICAL POINTS FOR THE TRADE

## ACTUAL PACKINGHOUSE TESTS.

**[EDITOR'S NOTE.]**—Every packinghouse superintendent keeps a record of tests, which is his most precious possession, and which serves him as a guide and reference in succeeding operations. It is only actual tests that tell the story in packinghouse practice; theory is all right, but practical results are a necessary guide always. The National Provisioner has printed on this page of "Practical Points for the Trade" many tests of this sort, in answering inquiries from subscribers. It has many more of these test results at its command, and will publish them from time to time for the general information of readers, instead of withholding them until some specific inquiry is made.

## RECIPES FOR CORNED BEEF.

A subscriber in New England who is a manufacturer of meat specialties writes:

Editor The National Provisioner:

Will you kindly give me a recipe for making a first-class cooked corned beef; also sweet pickle for same?

Beef should be thoroughly chilled and absolutely fresh when put in pickle. It is a great mistake to allow meats to become tainted before corning.

For canning purposes the meats are usually cured in a plain pickle of about 75 degrees for 25 days, in not too large pieces, of course. If some pieces are rather large, run a knife through them several times, so the pickle may find readier access. Before being put in pickle the meat should be freed of all bone and superfluous fat.

When cured the meat should be drained, then boiled at 212 degrees Fahr. for about 30 minutes, then taken to the trimming tables and all fat, bone, skin and sinew removed, after which it is cut up into suitable-sized pieces for stuffing into the cans.

Should the meat be fatter than usual, allow a few extra ounces per can, say, 3 ounces to a 6-pound can, as grease will escape during processing equal to that amount, and the canned meat will be all the more acceptable than if this grease were left in. Tallowy, greasy corned beef is not desirable, one reason why lean cattle are preferred to fat cattle is that there is less grease and a firmer finished article.

Reverting to the pickle, 3 ounces of granulated sugar and 1 ounce of refined saltpeter, or double-refined nitrate of soda, per gallon of pickle may be used if desired. The plain pickle may be 70 degs. to 72 degs. F., curing temperature not above 38 degs. F.

Corned beef intended for domestic cooking—that is, not for canning—should be from good cattle and consist of plates, rumps, crossribs, briskets, etc., in suitably-sized pieces, and packed in receptacles in as nearly equal sizes as possible, so as to insure close packing and a uniform cure.

These meats should be properly chilled (not frozen) and absolutely fresh when put in pickle, and cured in a uniform temperature of say 36 degs. to 38 deg. F. It may be said here it pays to keep all receptacles absolutely clean and sweet, all the time. If convenient the pickle may be boiled and skimmed and of course chilled before putting on the meats.

Ordinarily it requires about 4 gallons of liquid to cover 100 pounds of meat, and the meat must be kept submerged while curing; all the better if packed close and headed tight, so as to admit of rolling or turning end-for-end at intervals while in the process of curing.

Some curers pack the beef in barrels or tierces as follows: To each 100 pounds of meat allow 8 pounds of salt. Sprinkle a quarter-of-an-inch layer of this over the bottom of the barrel, then pack on this a layer of the meat as closely and as evenly in thickness as possible. Then put thereon a layer of salt, then a layer of meat, and so on. Reserve of the salt allowed, as stated above, enough to cover well the top layer of meat.

Allow the meats thus packed to stand overnight, then to each 100 pounds of meat add 2 pounds of good sugar—some use 4 pounds—and 4 ounces of refined saltpeter, well dissolved in one gallon of tepid water. Three gallons more of water should be sufficient

(Continued on page 24.)

## FEEDING AND MARKETING POULTRY.

(Concluded from last week.)

The following gives you some idea of how to kill and dress poultry for the market:

In the first place, poultry should be well fed and well watered, and then kept for 18 to 24 hours without food before killing. Stock dresses out brighter when well watered and it adds to the appearance. Full crops injure the appearance and are liable to sour, and when this does occur correspondingly lower prices must be accepted than obtainable for choice stock. Never kill poultry by wringing neck.

To dress chickens kill by bleeding in mouth or opening the veins of the neck; hang by the feet until properly bled. Leave head and feet on and do not remove intestines nor crop. Scalded chickens sell best. For scalding chickens the water should be as near the boiling point as possible without boiling—160 to 150 Fahrenheit; pick the legs dry before scalding; hold by the head and legs and immerse and lift up and down five or six times; if the head is immersed it turns the color of the comb and gives the eyes a shrunken appearance, which leads buyers to think the fowl has been sick; the feathers and pin feathers should then be removed immediately, while the body is warm, very cleanly and without breaking the skin; then "plump" by dipping ten seconds in water nearly or quite boiling hot, and then immediately in cold water; hang in a cool place (or, better, place on shelves in the shape you wish them to appear when cooled—hanging draws the breast muscles and makes them look thinner when cool and harder to pack) until the animal heat is entirely out of the body. To dry pick chickens properly the work should be done while the chickens are bleeding; do not wait and let the bodies get cold. Dry picking is much more easily done while the bodies are warm. Be careful and do not break and tear the skin.

(Continued on page 24.)

## You Are Invited

We will have some interesting and unique things to show you at the Second National Exposition of Chemical Industries, Grand Central Palace, week of September 25th.

Our booth will be on the main floor—Stop, Look and Listen!

Our new catalog is now with the printers and engravers and will be ready for distribution at that time. It features some very comprehensive blue prints.

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# THE NATIONAL PROVISIONER

New York and

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Association

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## PRODUCERS GET THE MONEY

According to reports issued this week by the United States Department of Agriculture on crop and livestock prices, the producer was paid an average increase of 9.3 per cent. during the month of August for his products. The government report is that the index figure of prices on September 1 was 21.9 per cent. higher than a year ago, 14.3 per cent. higher than two years ago, and 18.6 per cent. higher than the average of the last eight years on this date.

This report shows that the producer was paid 19.4 per cent. more for his meat animals than a year ago, 5.4 per cent. higher than two years ago and 18.7 per cent. higher than the average of the last six years.

If the livestock raiser received on an average 18.7 per cent. more for his animals than the average for the past six years, he ought to be moderately contented. And yet we find him still complaining of low prices and poor returns, talking of losing money on his livestock and of market combinations to compel him to sell at a loss, etc.

It is true that little has been heard in recent weeks of the various political moves for a government investigation of the meat

packers on the ground that they manipulate or control livestock prices. It seems that in spite of the political exigencies of the season those needy vote-seekers find it hard to continue their attacks on the trade. Such figures as those of the government report—not to mention news from the livestock market centers showing the highest prices paid for hogs since the civil war, and correspondingly high prices for other meat animals—such figures as these make even a political tirade hard to frame up.

Livestock commission interests are not so modest, however. The National Live Stock Exchange continues its vituperative assaults on the meat trade because the latter sees fit to buy its raw material where it pleases, instead of placing all its orders through these commission men.

Some of these attacks are amusing in their inconsistency. The latest statement of the Exchange condemns packers because they have cheapened the cost of beef to the public, when the Exchange interests believe they ought to have maintained prices, so that the livestock shipper could have got even higher returns for his stock. It upbraids those stockraisers who sold their animals direct to packers and declares that "Every animal sold to the country-buying pirates of the packers strengthens their position and forces meat prices to lower levels."

Congressmen looking for votes charge the packers with combining to cheat the producer, while the livestock interest upbraids them for acting so as to benefit the consumer. A stump speaker of reasonable ingenuity can make an issue out of almost anything, especially with the meat packer as a target, but these recent manifestations seem to have turned even political buncombe topsy-turvy. Out of the confusion the plain figures of the market reports and the official government statement shine with a clear light of fact.

## MEAT DEMAND FROM EUROPE

Some people are greatly concerned over the heavy exports to Europe of our domestic meats and meat products since the beginning of the European war. With European meat production reduced to the vanishing point, and armies of unparalleled size to feed, it was natural that the rest of the world would be pressed to supply the deficiency.

Practically all of South America's beef and mutton exports have gone into this war maw for the past two years. In Australia and New Zealand the government has assumed control of the entire meat supply of both countries, to take what it pleased for army needs.

Even this left Europe short of meat, and the United States and Canada had to be resorted to. Price was no consideration, and the orders naturally commanded consideration.

Cured pork products are one of the necessities for a force in the field, as well as for a home population short of food, and the United States was about the only source of such supplies in any quantity.

So it is not surprising that a compilation of statistics shows the export of meats has trebled since the beginning of the war, and of beef alone is ten times as much as before the war. This compilation shows that the exports of meats of all kinds, which aggregated 455,000,000 pounds in the fiscal year 1914, the year immediately preceding the war, were 885,000,000 pounds in 1915, and 1,339,000,000 pounds in 1916.

This increase of 100 per cent. in the total meat exports in the first year of the war and 200 per cent. in the second year, when compared with the exports of the year immediately preceding the war, is, however, trifling when compared with the increase in exports of beef alone. The quantity of fresh beef exported jumped from 6,400,000 pounds in the fiscal year 1914 to 170,000,000 pounds in 1915, and 231,000,000 pounds in 1916.

Of beef of all kinds the exports of 1916 were practically ten times as much as those of 1914, having been for 1916 320,000,000 pounds, against 33,000,000 pounds in 1914. In the two years of war the export of beef of all kinds has been 597,000,000 pounds, against 73,500,000 pounds in the two years preceding the war, or eight times as much as in the two years of war as in the preceding two years of peace.

The increase in exports of meats occurred almost exclusively in the movements to the countries at war. To Great Britain the exports of beef in 1916 were 117,000,000 pounds; to France, 49,000,000 pounds, and to Italy for the second half of the year, 48,000,000 pounds. In the year preceding the war there were no exports of fresh beef to any of these countries, the 6½ million pounds of fresh beef exported in 1914 going chiefly to Panama, Canada and the West Indian Islands.

Pork exports also show a marked increase, though not as great as those of beef, having been in 1916 998,000,000 pounds, against 597,000,000 pounds in 1915 and 411,000,000 pounds in 1914.

These comparisons seem all the more striking because our beef exports before the war began were practically nothing. They are not to be considered a menace of any duration to our domestic food supply, since the end of hostilities will unquestionably see an almost complete restoration of antebellum conditions. When the armies disband the meat orders will stop. As in other commercial lines, there will be a sudden and violent readjustment of foreign trade conditions. Fortunately, we need and can use at home all the meat products we can produce, so that this readjustment will not be a serious matter economically.



## TRADE GLEANINGS

T. J. Emerine's slaughterhouse in Carey, Ohio, has been destroyed by fire.

The plant of the Seaboard Oil & Guano Company, Heathsville, Va., has been damaged by fire.

Fire in the warehouse of the Griffith & Boyd Fertilizer Company, Canton, Md., caused considerable damage.

Fire destroyed the barn and storage buildings of the Arcadia Land & Live Stock Company, Ogden, Utah. Origin unknown.

Papp's Leghorn Farm, Inc., Newark, N. J., to deal in poultry, eggs, etc., has been incorporated with a capital stock of \$100,000.

J. I. Wade, Charles T. Faulkner, E. H. Hood and R. D. Smith have incorporated the Farmers Gin & Seed Company, Emmett, Ark., with a capital stock of \$4,000.

The Whitewright Oil Mill Company, White-wright, Texas, has been incorporated with a capital stock of \$35,000 by D. S. McMillin, W. N. Stone and T. H. Sears.

The Cambridge Soap & Chemical Company, now located in Greenpoint, Brooklyn, N. Y., will erect a four-story factory building at the corner of Hamilton street and Harris avenue, Long Island City, N. Y.

A branch house, to cost \$75,000, will be erected at 1841 Cherry avenue, Fresno, Cal., by the Cudahy Packing Company. The building will be 140 x 62½ feet and will be of concrete and brick construction.

A packing plant to cost about \$300,000 is to be established in a short time by the Moran Packing Company of San Francisco, Cal. This plant will be located on Seventy-third avenue, near the Southern Pacific tracks in East Oakland, Cal.

Grease dripping from meat in the smoke room caused a fire which damaged the plant of J. H. Allison & Company, at Chattanooga, Tenn. The entire second floor and packing rooms, containing fifteen carloads of meat, were gutted and stock ruined.

The International Planters' Corporation, New York, N. Y., to deal in fruits, livestock, etc., has been incorporated with a capital stock of \$575,000 by R. B. Randolph, East Roselle, N. J.; A. B. Champlin, Underrill avenue, Tuckahoe, N. Y., and E. C. Grey, 286 St. Johns place, Brooklyn, N. Y.

At a meeting of the directors of the Northern Packing Company, Grand Forks, N. D., the following officers were elected: M. F. Murphy, president; R. B. Griffith, vice-president; C. W. Graves, secretary, and James A. Dinnie, treasurer. The executive committee is composed of the following men: E. J. Lander, chairman; O. S. Hanson, M. F. Murphy, A. I. Hunter and H. B. Finch.

The John R. Daily Company has started work on the construction of a packing plant at Missoula, Mont., to cost \$40,000. The plant will be of brick and concrete, 100 x 60 feet, and a basement containing 17,500 square feet of space, where a cold storage plant will be installed. Slaughtering will be done in the present plant of the company, which will be remodeled and enlarged; improvements to be completed by December 1.

### BUTTER, EGGS AND CHEESE STORED.

The Office of Markets and Rural Organization of the United States Department of Agriculture in its report of cold storage holdings of creamery butter on September 1, 1916, states that reports from 166 firms show that

these firms now have 102,843,822 pounds of creamery butter in storage. The 143 firms that reported their holdings of this year and last showed a present stock of 100,989,976 pounds as compared with 101,661,678 pounds last year, a decrease of two-thirds of one per cent. The amount in storage as now reported is 10.6 per cent. greater than on August 1, 1916. Inasmuch as a few cold storage firms have not responded to the monthly inquiries, this report is not quantitatively complete.

Reports from 221 firms show that these firms on September 1 had 4,761,632 cases of eggs in storage. The 185 firms that reported their holdings of this year and last showed a present stock of 4,590,688 cases as compared with 5,682,950 cases last year, a decrease of 1,092,262 cases or 19.2 per cent. The amount in storage as now reported is 10.9 per cent. less than on August 1, 1916.

Reports from 152 firms show that these firms had 30,437,771 pounds of American cheese in storage. The 119 firms that reported their holdings of this year and last showed a present stock of 27,745,176 pounds as compared with 28,574,634 pounds last year, a decrease of 829,458 pounds of 2.9 per cent. The kind of cheese classed as American includes both whole milk and skim cheese. It does not include soft cheese or foreign varieties.

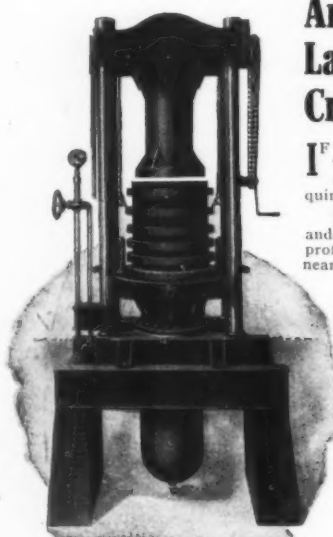
### AMERICAN HIDE & LEATHER REPORT.

For the year ended June 30, the American Hide & Leather Company reports a gain of nearly \$3,500,000 in gross earnings, a rise of almost \$4,000,000 in expenses; an increase of a little less than \$600,000 in net earnings; and a surplus of \$1,643,265, equivalent to 12.6 per cent. on the \$13,000,000 preferred stock, against 7.38 per cent. a year ago. The figures compare as follows:

	1916.	1915.	1914.
Gross output.....	\$23,559,749	\$19,002,483	\$17,759,076
Cost of material used.....	\$19,487,455	\$15,864,942	\$15,452,311
Repl., ren., etc.....	204,010	173,937	188,296
Discounts.....	1,083,511	824,574	754,179
Total deduct.....	\$20,774,977	\$16,863,453	\$16,394,788
Mfg. profit.....	\$2,784,722	\$2,299,030	\$1,364,288
Gen. & sell. exp.....	490,741	514,379	529,103
Bad debts, etc.....	6,840	18,825	17,195
Net earnings.....	\$2,287,191	\$1,695,826	\$817,990
Surplus.....	\$1,643,265	\$959,974	\$167,205

### MONEY FOR MEAT INSPECTION.

The Agricultural Appropriation bill as finally passed by Congress and signed by the President carries a total of \$3,344,500 for the purpose of the enforcement of the meat inspection act. Of this \$3,000,000 is the regular annual appropriation provided for when the meat inspection act was first passed, and which stands as a fixed appropriation, not included in the Agricultural bill. The added \$344,500 is for meat inspection work which has developed in the course of the growth of the system, and which could not be provided for within the limits of the annual three million dollar grant.



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# PROVISIONS AND LARD

## WEEKLY REVIEW

All articles under this head are quoted by the barrel, except lard, which is quoted by the hundredweight in tierces, pork and beef by the barrel or tierce and hogs by the hundredweight.

### Trading Quieter—Prices React—Demand Less Urgent—Some Speculative Realizing—Hog Supply Less.

The number of hogs for fattening or number of stock hogs as reported by the government on September 1 shows a decrease of 3.8 per cent. compared with last year. A year ago at this time the number showed an increase of 7.2 per cent. and in September, 1914, the number of hogs showed an increase of 8 per cent. The report showed that following one year of small increase and one year of important increase the number of hogs in the country is beginning to decrease. No report was given on the condition of the hogs and none was published last year, although it had been the custom prior to last year to publish such statement.

On the basis of the number of hogs reported in the country January 1, 1916, of 68,047,000, a decrease of 3.8 per cent. would mean a reduction of 2,585,000. The number reported on hand January 1 was 68,047,000, compared with 64,618,000 the preceding year. The government report of the number of hogs possibly shows the effect of the higher prices of hogs and its influence on the marketing.

The price of meat animals as reported by the department shows an increase of 1 per cent. from July 15 to August 15, while the increase in prices for the corresponding time in the preceding six years was 1.1 per cent. On August 15 the index price of these animals was 19.4 per cent. higher than a year ago, 5.4 per cent. higher than two years ago and 18.7 per cent. higher than the average of the past six years.

Part of this reduction in the number of hogs in the country may be accounted for in the increased packing operations. Although the packing for the past week, which was, of course, the holiday week, was only 300,000, compared with 452,000 the preceding week and 255,000 last year. The packing since March 1 has been 15,911,000 against 13,732,000 a year ago.

In this connection a further comparison of prices for live stock compared with the preceding years is of interest. While choice steers are selling from \$10.35@11.50, the average for cattle is not so much over last year as the average for hogs. The quotations for the past week at Chicago of all live stock compared with the preceding years shows as follows:

	Hogs.	Cattle.	Sheep.	Lambs.
Last week .....	\$10.75	\$9.65	\$7.55	\$10.80
Previous week....	10.85	9.85	7.30	10.45
Cor. week 1915...	7.05	8.95	5.60	8.75
Cor. week 1914...	8.85	9.30	5.40	7.80
Cor. week 1913...	8.30	8.40	4.25	7.15
Cor. week 1912...	8.55	8.55	4.25	7.15
Cor. week 1911...	7.10	7.00	3.75	5.50
Cor. week 1910...	9.10	6.70	4.25	6.90
Cor. week 1909...	8.15	6.90	4.65	7.10
Cor. week 1908...	6.80	6.29	3.90	5.45
Cor. week 1907...	6.00	6.05	5.40	7.10

The increase in the price of hogs compared with last year is \$3.70 per 100, while the increase in the price of lard and ribs is \$6 a 100 and pork \$13.20 a barrel.

The shipments of product from packing centers continues very liberal. Chicago ship-

ments the past week showed an increase over last year on meats, both fresh and cured. The exports for the past week were 11,700,000 pounds of meats and 12,300,000 pounds of lard, while the increase in the exports of meats for the season has been 54,000,000 pounds and the increase in the exports of lard 22,000,000 pounds.

In connection with the exports of meat a very interesting statement has been prepared by the National City Bank. This statement shows that the exports of meats of all kinds during the fiscal year just passed were 1,339,000,000 pounds against 885,000,000 pounds the first year of the war and 455,000,000 pounds the year before the war. The quantity of fresh beef exported jumped from 6,400,000 pounds in the fiscal year 1913-14 to 231,000,000 pounds in 1916. The exports of beef of all kinds in 1916 were within 10,000,000 pounds of being 10 times as large as in 1914. The exports of beef in the two years of the war have been 597,000,000 pounds against 73,500,000 pounds in the two years preceding the war.

These figures are particularly interesting in view of the fact in that the supply of beef cattle in the country has decreased so materially. From 1907 to 1915 the supply of beef cattle decreased 28 per cent. while the population increased 15 per cent. These enormous exports readily explain the reasons for the high prices of provisions of all kinds. The price of beef compared with quotations before the war and the price of hog products all show such substantial increases that the effect of the enormous exports is readily seen. The value of the meat exports for the past fiscal year was \$180,980,000.

Prices on Wednesday were strong, with large trading on reports that important amounts of product had been absorbed by France and the Belgian Relief.

LARD.—Prices are very firm for all grades. Western markets are strong and a good demand is reported for lard and meats the past few days for France and the Belgian Relief. City is quoted at \$14.62@14.75; Western, \$14.80@14.90; Middle West, \$14.75@14.80; refined Continent, \$15.70; South American, \$16.20; Brazil, kegs, \$17.20; compound, \$11.37½@11.62½.

PORK.—The situation is very firm. Demand is not heavy, but is very persistent and supplies are taken off the market at the high prices. Mess, \$30@31; clear, \$27@29, and family, \$30@31.

BEEF.—The market is very firm. Demand is persistent and at full prices. Stocks are small and not pressed for sale. Mess, \$20.50@21; packet, \$21@21.50; family, \$23@24; extra India, \$31@32.

SEE PAGE 29 FOR LATER MARKETS.

### EXPORTS OF HOG PRODUCTS.

Exports of hog products from New York reported up to September 13, 1916:

HOGS.—Colombia, 2 hd.  
 RACON.—Argentina, 1,614 lbs.; Barbados, 46 lbs.; Bermuda, 9,696 lbs.; Brazil, 872 lbs.; British Honduras, 50 lbs.; British West Indies, 3,699 lbs.; Canada, 650 lbs.; Colombia, 131 lbs.; Cuba, 33,011 lbs.; Danish West Indies, 167 lbs.; Dutch West Indies, 323 lbs.; England, 3,637,837 lbs.; France, 192,534 lbs.; Gibraltar, 14,000 lbs.; Italy, 51,023 lbs.; Newfoundland, 2,848 lbs.; Nicaragua, 85 lbs.; Norway, 255,397 lbs.; San Domingo, 2,938 lbs.; Scotland, 159,856 lbs.; Spain, 65,596 lbs.  
 HAMS AND SHOULDERS.—Argentina, 6,300 lbs.; Bermuda, 17,734 lbs.; Brazil, 1,389 lbs.; British West Indies, 3,064 lbs.; Chile, 200 lbs.; Colombia, 204 lbs.; Costa Rica, 393

lbs.; Cuba, 52,310 lbs.; Danish West Indies, 1,846 lbs.; Dutch West Indies, 472 lbs.; England, 2,538,499 lbs.; France, 29,025 lbs.; Guatemala, 100 lbs.; Haiti, 778 lbs.; Honduras, 1,438 lbs.; Jamaica, 317 lbs.; Mexico, 8,063 lbs.; Newfoundland, 13,032 lbs.; Nicaragua, 213 lbs.; Norway, 2,397 lbs.; Panama, 1,431 lbs.; San Domingo, 11,295 lbs.; Scotland, 179,149 lbs.; Spain, 27,625 lbs.; Venezuela, 7,151 lbs.

LARD.—Argentina, 1,300 lbs.; Barbados, 1,596 lbs.; Bermuda, 1,641 lbs.; Brazil, 10,470 lbs.; British South Africa, 20,616 lbs.; British West Indies, 2,898 lbs.; Colombia, 4,225 lbs.; Costa Rica, 1,000 lbs.; Cuba, 9,400 lbs.; Danish West Indies, 4,140 lbs.; Denmark, 162,457 lbs.; Dutch West Indies, 336 lbs.; England, 709,432 lbs.; France, 24,372 lbs.; Haiti, 4,240 lbs.; Jamaica, 138 lbs.; Mexico, 10,566 lbs.; Norway, 208,113 lbs.; Panama, 1,333 lbs.; San Domingo, 41,342 lbs.; Scotland, 95,160 lbs.; Spain, 55,874 lbs.; Uruguay, 2,000 lbs.; Venezuela, 10,318 lbs.

LARD COMPOUND.—Bermuda, 15,333 lbs.; British Guiana, 30,009 lbs.; British West Indies, 15,810 lbs.; Chile, 1,900 lbs.; Cuba, 271,979 lbs.; Danish West Indies, 12,784 lbs.; Dutch West Indies, 5,434 lbs.; England, 267,466 lbs.; France, 4,000 lbs.; Haiti, 7,726 lbs.; Jamaica, 1,150 lbs.; Newfoundland, 162 lbs.; Norway, 22,000 lbs.; Panama, 1,125 lbs.; Peru, 5,000 lbs.; San Domingo, 1,160 lbs.; Scotland, 185,515 lbs.

LARD OIL.—British Guiana, 150 gals.; Cuba, 113 gals.; France, 1,001 gals.; Venezuela, 33 gals.

FRESH PORK.—Bermuda, 230 lbs.

PICKLED PORK.—Bermuda, 6,600 lbs.; British East Indies, 800 lbs.; British Guiana, 29,600 lbs.; British West Indies, 25,900 lbs.; Cuba, 34,527 lbs.; Danish West Indies, 6,200 lbs.; Dutch West Indies, 250 lbs.; England, 94,116 lbs.; France, 6,000 lbs.; Haiti, 7,200 lbs.; Jamaica, 1,000 lbs.; Newfoundland, 123,396 lbs.; Norway, 40,000 lbs.; San Domingo, 10,020 lbs.

CANNED PORK.—British West Indies, 60 lbs.; England, 49,917 lbs.; France, 2,400 lbs.; Panama, 60 lbs.

SAUSAGE.—Argentina, 1,000 lbs.; Barbados, 50 lbs.; Bermuda, 2,858 lbs.; British West Indies, 695 lbs.; Chile, 30 lbs.; Colombia, 382 lbs.; Cuba, 120 lbs.; Danish West Indies, 518 lbs.; Dutch West Indies, 1,045 lbs.; England, 21 lbs.; France, 126,600 lbs.; Guatemala, 240 lbs.; Haiti, 1,052 lbs.; Honduras, 5,250 lbs.; Newfoundland, 2,216 lbs.; San Domingo, 17,994 lbs.; Venezuela, 465 lbs.

### EXPORTS OF BEEF PRODUCTS.

Exports of beef products from New York reported up to September 13, 1916:

BEEF PICKLED AND OTHER CURED.—Bermuda, 35,123 lbs.; Brazil, 250 lbs.; British Guiana, 53,000 lbs.; British South Africa, 3,000 lbs.; British West Indies, 10,494 lbs.; Canada, 5,000 lbs.; Costa Rica, 3,000 lbs.; Cuba, 1,860 lbs.; Danish West Indies, 2,015 lbs.; Dutch West Indies, 3,960 lbs.; England, 456,925 lbs.; Guatemala, 6,000 lbs.; Haiti, 1,700 lbs.; Honduras, 500 lbs.; Newfoundland, 144,000 lbs.; Norway, 225,200 lbs.; Panama, 6,500 lbs.; San Domingo, 2,900 lbs.; Scotland, 49,218 lbs.; Venezuela, 357 lbs.

FRESH BEEF.—Bermuda, 26,166 lbs.; England, 332,964 lbs.

OLEOMARGARINE.—Bermuda, 3,940 lbs.; British Guiana, 1,802 lbs.; British West Indies, 31,895 lbs.; Cuba, 350 lbs.; Danish West Indies, 5,250 lbs.; Dutch Guiana, 140 lbs.; Dutch West Indies, 2,734 lbs.; Haiti, 1,200 lbs.; Jamaica, 100 lbs.; Newfoundland, 300 lbs.; Panama, 1,000 lbs.; San Domingo, 400 lbs.

OLEO OIL.—Bermuda, 3,020 lbs.; British

West Indies, 2,175 lbs.; Danish West Indies, 1,330 lbs.; England, 395,117 lbs.; France, 22,531 lbs.; French West Indies, 300 lbs.; Greece, 28,256 lbs.; Italy, 9,738 lbs.; Newfoundland, 75,327 lbs.; Norway, 320,618 lbs.; Scotland, 32,900 lbs.

STEARINE.—British India, 30,000 lbs.; Colombia, 160 lbs.; England, 100,800 lbs.; Greece, 109,822 lbs.; Honduras, 8,000 lbs.; Peru, 11,100 lbs.; Salvador, 4,440 lbs.; Scotland, 23,000 lbs.; Sweden, 1,138 lbs.

OLEO STOCK.—Norway, 9,700 lbs.

TALLOW.—British West Indies, 100 lbs.; Colombia, 6,899 lbs.; Honduras, 1,665 lbs.; Italy, 468,232 lbs.; San Domingo, 23,438 lbs.; Sweden, 40,190 lbs.; Venezuela, 2,423 lbs.

TALLOW OIL.—England, 755 gals.

CANNED MEATS (Value).—Argentina, \$6; Bermuda, \$696; British India, \$139; Brit-

ish South Africa, \$401; British West Indies, \$404; Colombia, \$379; Cuba, \$831; Danish South Africa, \$52; Danish West Indies, \$181; Dutch West Indies, \$15; England, \$207,956; Guatemala, \$208; Haiti, \$34; Honduras, \$90; Mexico, \$70; Newfoundland, \$115; Portuguese Africa, \$51; San Domingo, \$193; Scotland, \$744; Spain, \$1,710; Venezuela, \$29.

OTHER MEAT PRODUCTS (Value).—Argentina, \$199; Australia, \$3; Bermuda, \$956; British Guiana, \$2,321; British Honduras, \$4; British West Indies, \$796; Costa Rica, \$79; Cuba, \$1,489; Danish West Indies, \$132; Dutch West Indies, \$658; England, \$10,959; France, \$1,483; French Guiana, \$765; Haiti, \$405; Jamaica, \$253; Newfoundland, \$314; Norway, \$6,200; Portuguese Africa, \$77; San Domingo, \$353; Scotland, \$3; Spain, \$6,178; Venezuela, \$32.

#### EXPORTS SHOWN BY STEAMERS.

Exports of commodities from New York to European ports for the week ending Thursday, September 7, 1916, as shown by A. L. Russell's report are as follows:

Steamer and Destination.	Coke, Bbls.	Cottonseed Oil, Bbls.	Butter, Boxes.	Bacon and Hams, Boxes.	Tallow, Pkgs.	Beef, Pkgs.	Pork, Bbls.	Lard, Tons and Pkgs.
New York, Liverpool.....		3723	2627			10		2500
Carpathia, Liverpool.....	637	7178	1569					819 1000
Finland, Liverpool.....		250	500			130		530
Adriatic, Liverpool.....		200	2503			17		
Vinovia, London.....			45					7400
Mesaba, London.....		4570	276				75	1500
Galileo, Hull.....		217	1063					675 1800
Idaho, Hull.....		316	1195					575 608
Kansas City, Bristol.....						50		400
Bovic, Manchester.....		2909						2000
Annapolis, Leith.....								350 600
Samland, Rotterdam.....			6271					19987
Mezar, Rotterdam.....		20374						
Atalanta, Norresceudby (Den.).....		11151						
Frederick VIII, Copenhagen.....		7695						
Kirkoswald, Marseilles.....								
Roma, Marseilles.....								375 300
Harpagus, Marseilles.....								34
Harpagus, Marseilles.....								152
Harpagus, Gibraltar.....								330
Total.....	39857	19363	17434			207	109 23483	18108

#### EXPORTS OF PROVISIONS

Exports of hog products for the week ending September 9, 1916, with comparisons:

To—	PORK, BBLs.		From Nov. 1, '15, to Sept. 9, 1916.
	Week ending Sept. 9, 1916.	Week ending Sept. 11, 1915.	
United Kingdom.....	195	475	12,387
Continent.....	34	10	4,443
So. & Cen. Am.....	433	329	10,100
West Indies.....	521	280	44,795
Br. No. Am. Col.....		519	14,922
Other countries.....			875
Total.....	1,183	1,613	96,582

#### MEATS, LBS.

United Kingdom.....	7,969,100	7,834,700	528,489,922
Continent.....	4,239,244	9,040,219	186,329,379
So. & Cen. Am.....	28,797	56,505	2,748,625
West Indies.....	55,672	127,470	9,818,785
Br. No. Am. Col.....	18,375	1,225	740,536
Other countries.....			687,213
Total.....	11,311,188	17,660,169	728,814,400

#### LARD, LBS.

United Kingdom.....	2,817,430	2,971,310	229,882,222
Continent.....	2,726,979	4,158,600	164,498,026
So. & Cen. Am.....	469,283	655,893	33,146,647
West Indies.....	362,619	261,614	25,725,373
Br. No. Am. Col.....		23,106	585,619
Other countries.....			1,900,732
Total.....	12,316,311	8,070,523	453,798,619

#### RECAPITULATION OF THE WEEK'S EXPORTS.

From—	Pork, bbls.	Meats, lbs.	Lard, lbs.
New York.....	583	8,269,763	9,646,031
Boston.....		791,425	554,280
Montreal.....		2,510,000	1,416,000
Mobile.....	690		700,000
Total week.....	1,183	11,411,188	12,316,311
Previous week.....	3,115	14,507,919	8,816,530
Two weeks ago.....	1,405	15,135,871	9,636,745
Cor. week last y'r.....	1,613	17,660,179	8,070,523

#### COMPARATIVE SUMMARY OF EXPORTS.

From Nov. 1, '15, Same Time to Sept. 9, '16, last year.			Increase.
Pork, lbs.	19,316,400	17,273,400	2,043,000
Meats, lbs.	728,814,400	676,364,552	52,449,808
Lard, lbs.	453,798,619	431,585,755	22,212,834

Bargains in equipment may be obtained by watching the "For Sale" department, page 48.

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# TALLOW, STEARINE, GREASE and SOAP

## WEEKLY REVIEW

**TALLOW.**—The undertone continues very firm and holders of tallow do not seem to be anxious to sell at the material advances of the past several weeks. There has been some business in city special tallow on the basis of 9c. and claims of odd lots at higher levels. Those who have this tallow to distribute are asking 9½c.

Glycerine is reported firmer with C.P. quoted as high as 43c. or 10c. a pound above the recent level. Opinions are very much mixed as to probable fluctuations in glycerine in the near future. There are claims that 50c. will soon be paid, but likewise authorities in the trade are skeptical of a runaway market such as was witnessed last year.

Export inquiries for tallow seemed to have increased, but the actual business has been light. Official figures on tallow exports would indicate that the business for the past several months has been better than generally supposed. There is Australian tallow for sale here, although the fresh offerings for import are light. It is intimated that further advances in the prices for American tallow might stimulate another batch of South American offerings. The London auction sale resulted in offerings of 1,188 casks, of which 664 were absorbed at 2s. decline. Sales Thursday were 200 drums specials at ½c. advance at 9½c. loose.

Prime city tallow is quoted at 8¾@9c. and city specials at 9½c. loose.

**OLEOSTEARINE.**—The market rules steady on the basis of 12½c. Demand is chiefly from local compound lard makers, although occasional export orders are under cover.

**OLEO OIL.**—The market is quiet but firm with other oils. Offerings are light and values are firmly held. Extras are quoted at 14@14½c. and medium at 13@13½c.

SEE PAGE 29 FOR LATER MARKETS.

**PEANUT OIL.**—Prices are very steady, with quotations higher on the advance in other oils. Prices are quoted at 75@85c.

**PALM OIL.**—The market is quoted unchanged, but the situation is very firm. Offerings are small both on the spot and to arrive and with the strength of other oils values are very firm. Prime red, spot, 8¾@9c.; Lagos, spot, 9@9½c.; to arrive, —; palm kernel, 12½@13c.

**CORN OIL.**—The market shows another advance this week, with the tone very firm. Demand is good and offerings have been steadily absorbed. Prices at 9@9½c.

**SOYA BEAN OIL.**—Trade is of steady volume, with supplies readily absorbed. The strength in competing fats is affecting the market. Spot is quoted at 8½@8¾c.

**NEATSFOOT OIL.**—The market was again quiet but steady. For 20 cold test, 103@105; 30 do., 97@100; water white, 98.

**COCOANUT OIL.**—Prices are very firm, with moderate business. Demand, while not large, is steady, and there is no pressure of supplies. Ceylon, 12½@13c.; Cochiti, 14@15c.

**GREASES.**—The market is strong and higher, with the advance in oil and tallow. Demand has been excellent. Yellow, 8@8½c., nom.; bone, 8@8¼c., nom.; house, 8@8¼c.

### FRESH MEAT AND OFFAL IMPORTS.

Imports of foreign beef into the port of New York during the past week totaled nothing, compared to nothing last week and 4,120 quarters two weeks ago. Mutton imports totaled nothing, compared to nothing last week. Arrivals comprised 24 cases of corned beef, 250 casks of tripe, 599 casks of tallow and 20 casks of neatsfoot oil, all from Buenos Aires.

### ARGENTINE BEEF EXPORTS.

Cable reports of Argentine exports of beef for the week up to September 15, 1916, show that exports from that country were as follows: To England, 57,955 quarters; to the Continent, 68,451 quarters; to the United States, none. The previous week's exports were as follows: To England, 128,184 quarters; to the Continent, 46,273 quarters; to the United States, none.

### IMPORTS OF FRESH BEEF.

For the week ending September 9, 1916, the Government reports imports of fresh beef at the port of New York amounting to 227,969 pounds, the average value, according to estimates from the manifests, being 12 cents per pound. The previous week's imports totaled 826,561 pounds and averaged 9 cents per pound.

### OCEAN FREIGHTS.

(Subject to change. Quotations given are shillings per ton and cents per 100 lbs.)

	Liver- pool.	Glas- gow.	Rotter- dam.	Copen- hagen.
Peef, tierces .....	\$1.75	\$1.75	250c.	250c.
Pork, barrels .....	1.75	1.75	250c.	250c.
Bacon .....	1.75	1.75	250c.	250c.
Canned meats .....	1.75	1.75	250c.	250c.
Lard tierces .....	1.75	1.75	250c.	250c.
Tallow .....	1.75	1.75	250c.	250c.
Cottonseed oil .....	7.00	10.00	250c.	250c.
Oil Cake .....	.50	.50	175c.	190c.
Butter .....	1.50	1.50	300c.	300c.

No rates to Hamburg.

### GREEN AND SWEET PICKLED MEATS.

(Special Report to The National Provisioner from The Davidson Commission Co.)

Chicago, September 14.—Quotations on green and sweet pickled meats, f. o. b. Chicago, loose, are as follows:

Regular Hams.—Green, 8@10 lbs. ave., 17c.; 10@12 lbs. ave., 17c.; 12@14 lbs. ave., 17c.; 14@16 lbs. ave., 17c.; 18@20 lbs. ave., 17¼c. Sweet pickled, 8@10 lbs. ave., 16¾c.; 10@12 lbs. ave., 16¾c.; 12@14 lbs. ave., 16¾c.; 14@16 lbs. ave., 16¾c.; 18@20 lbs. ave., 17¼@17½c.

Skinned Hams.—Green, 14@16 lbs. ave., 18¼c.; 16@18 lbs. ave., 18¼c.; 18@20 lbs. ave., 18¼c.; 22@24 lbs. ave., 18c. Sweet pickled, 14@16 lbs. ave., 17¾c.; 16@18 lbs. ave., 18¼c.; 18@20 lbs. ave., 18¼c.; 22@24 lbs. ave., 18¼c.

Picnic Hams.—Green, 5@6 lbs. ave., 12¼c.; 6@8 lbs. ave., 11¾c.; 8@10 lbs. ave., 11¾c.; 10@12 lbs. ave., 11¾c. Sweet pickled, 5@6 lbs. ave., 12c.; 6@8 lbs. ave., 11½@11¾c.; 8@10 lbs. ave., 11½@11¾c.; 10@12 lbs. ave., 11½@11¾c.

Clear Bellies.—Green, 6@8 lbs. ave., 18c.; 8@10 lbs. ave., 17½c.; 10@12 lbs. ave., 16¾c.; 12@14 lbs. ave., 16¾c.; 14@16 lbs. ave., 16¾c. Sweet pickled, 6@8 lbs. ave., 16¾c.; 8@10 lbs. ave., 16¾c.; 10@12 lbs. ave., 16¾c.; 12@14 lbs. ave., 15¾c.; 14@16 lbs. ave., 15¾c.

### PORK CUTS IN NEW YORK.

(Special Report to The National Provisioner from H. C. Zaun.)

New York, September 14.—Wholesale prices on green and sweet pickled pork cuts in New York City are reported as follows: Pork loins, 24@25c.; green hams, 8@10 lbs. ave., 18½c.; 10@12 lbs. ave., 18c.; 12@14 lbs. ave., 18c.; 18@20 lbs. ave., 18½c.; green clear bellies, 6@10 lbs. ave., 18c.; 10@12 lbs. ave., 17½c.; 12@14 lbs. ave., 17c.; green rib bellies, 10@12 lbs. ave., 17c.; 12@14 lbs. ave., 17c.; S. P. clear bellies, 6@8 lbs. ave., 16½c.; 8@10 lbs. ave., 17c.; 10@12 lbs. ave., 16½c.; 12@14 lbs. ave., 16½c.; S. P. rib bellies, 10@12 lbs. ave., 16½c.; 12@14 lbs. ave., 16c.; S. P. hams, 8@10 lbs. ave., 18c.; 10@12 lbs. ave., 18c.; 18@20 lbs. ave., 19½c.; city steam lard, 14¾@14½c.; city dressed hogs, 15½c.

Western prices on green cuts are as follows: Pork loins, 8@10 lbs. ave., 21@22c.; 10@12 lbs. ave., 20@21c.; 12@14 lbs. ave., 19@20c.; 14@16 lbs. ave., 18@19c.; skinned shoulders, 15c.; boneless butts, 18@19c.; Boston butts, 16@16½c.; neck ribs, 3@4c.; spareribs, 10½c.; lean trimmings, 15@16c.; regular trimmings, 12@12½c.; kidneys, 6c.; tails, 6@7c.; livers, 2@3c.; snouts, 4½c.; pig tongues, 13@13½c.

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SODA ASH

COCOANUT OIL

PALM OIL

TALLOW

GREASE

STEARINE

**RECIPES FOR CORNED BEEF.**

(Continued from page 18.)

to cover 100 pounds of meat. If the meat is packed in barrels and headed tight, roll well as soon as packed and again in 5, 10 and 15 days.

Depending upon the sizes of the pieces, the meat will cure in 25 to 40 days. With the maximum amount of sugar given, together with too high temperature, the pickle may ferment and become "ropy," hence this possibility should be avoided.

The addition of two ounces of baking soda per 4 gallons of pickle helps the cure to some extent.

If the packages are not rolled, the meats should be turned and the pickle returned, well mixed and clear.

Another cure is as follows: To each four gallons of clean cold water add two pounds of good brown sugar or molasses, six pounds of good clean salt, and four ounces of refined saltpeter. Need not be boiled if the water and ingredients are pure and clean. Pack the meat in the receptacle closely, sprinkling each piece lightly with fine salt as packed; then add the above amount of pickle, cold, to each 100 pounds of meat.

Ordinarily for curing any kind of meat per 100 pounds about four gallons of pickle is necessary, made up of from 6 to 8 pounds of sugar, 2 to 4 ounces of saltpeter, or doubly refined nitrate of soda, and 2 to 4 pounds of sugar, or its equivalent in good molasses. Such pickles may be reinforced, if clear and sweet, and used over several times. Reinforce, boil and skim if necessary, but always use cold, around 36 degs. F. say. Meats should be clean and trimmed of superfluous fat and skinned before being placed in cure. Further information concerning sweet pickle will be found in the issue of The National Provisioner of August 19, on this page.

**FEEDING AND MARKETING POULTRY.**

(Continued from page 18.)

In dressing capons, first be sure and not kill them until crops are empty and that they are fat. A thin capon is not as good as an ordinary chicken, because if not large or a proper capon they are not wanted as capons or chickens either. Leave feathers on neck from head down two-thirds way to shoulders. Leave feathers on two joints of wings. Leave feathers on tail and half way up the back. Leave feathers on legs from knee joint two-thirds up the hips. All the rest of the feathers come off. Feathers that are removed should be saved and will sell if kept dry and clean. Be careful and keep the capon clean. Wrap paper around head. Appearances add to the sale and, of course, price.

Ducks and geese should be scalded in the same temperature of water as for other kinds of poultry, but it requires more time for the water to penetrate and loosen the feathers. Some parties advise, after scalding, wrapping them in a basket for the purpose of steaming, but they must not be left in this condition long enough to cook the flesh. Do not undertake to dry pick geese and ducks before killing for the purpose of saving the feathers, as it causes the skin to become very much inflamed, and is a great injury to the sale. Do not pick the feathers off the head; leave the feathers on for two or three inches on the neck. Do not singe the bodies for the purpose of removing any down or hair, as

the heat from the flame will give them an oily and unsightly appearance. After they are picked clean they should be held in scalding water about ten second for the purpose of plumping, then rinsed off in clean, cold water. Fat, heavy stock is always preferred.

To dress turkeys, observe the same instructions as given for preparing chickens, but always dry pick. Pick when warm to avoid tearing. The tail feathers come off with a twist—a straight pull will "set" them. Dress turkeys, when dry picked, always sell best and command better prices than scalded lots, as the appearance is brighter and more attractive. Endeavor to market all old and heavy gobblers before Jan. 1, as after the holidays the demand is for small, fat hen turkeys only.

Before packing and shipping poultry should be thoroughly dry and cold, but not frozen; the animal heat should be entirely out of the body; pack in boxes or barrels, and see that packages are clean, lining them with manila or straw paper; boxes holding 100 to 200 pounds are preferable and pack snugly; straighten out the body and legs so that they will not arrive very much bent and twisted out of shape; fill the packages as full as possible to prevent moving about on the way; barrels answer better for chickens and ducks than for turkeys or geese; when convenient avoid putting more than one kind in a package, mark kind and weight of each description on the package and mark shipping directions plainly on the cover.

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**COTTONSEED OIL EXPORTS**

Exports of cottonseed oil reported for the week ending September 14, 1916, and for the period since September 1, 1916, were:

	Week ending Sept. 14, 1916. Bbls.	Since Sept. 1, 1916. Bbls.
<b>From New York—</b>		
Argentina .....	14	14
Australia .....	2	39
Central America .....	5	10
Chile .....	4	4
Cuba .....	6	423
French Guiana .....	43	43
Haiti .....	—	3
Mexico .....	2	2
Netherlands .....	—	3,067
Norway .....	150	150
Panama .....	3	3
Peru .....	2	2
San Domingo .....	51	77
South America, Other.....	45	1,349
West Indies, Other.....	70	1,104
<b>Total .....</b>	<b>397</b>	<b>5,290</b>
<b>From New Orleans—</b>		
Mexico .....	—	15
<b>Total .....</b>	<b>—</b>	<b>15</b>
<b>From other ports—</b>		
Mexico .....	1	1
<b>Total .....</b>	<b>1</b>	<b>1</b>
	Week ending Sept. 14, 1916. Bbls.	Since Sept. 1, 1916. Bbls.
<b>Recapitulation—</b>		
From New York.....	397	5,290
From New Orleans.....	—	15
From other ports.....	1	1
<b>Total .....</b>	<b>398</b>	<b>5,306</b>
	26,108	3,340
<b>Total .....</b>	<b>398</b>	<b>5,306</b>

**SOUTHERN MARKETS****Atlanta.**

(Special Wire to The National Provisioner.)

Atlanta, Ga., September 14, 1916.—Crude cottonseed oil easier at 67½c. Meal, \$32.50@33. Atlanta, for prime, 7 per cent. Hulls, \$11.50@12. Atlanta, loose.

**Memphis.**

(Special Wire to The National Provisioner.)

Memphis, Tenn., September 14, 1916.—Prime crude cottonseed oil, steady, at 68c. Prime 7½ per cent. meal, nominally \$32; not much trading. Hulls, easier; \$9@9.50, loose. Linters, 6½c. for good mill run; demand very light.

**New Orleans.**

(Special Wire to The National Provisioner.)

New Orleans, La., September 14, 1916.—Prime crude cottonseed oil, stead, at 67c. for Texas and Louisiana; production and offerings light, but increasing. Seven per cent. loose cake worth \$27.50, short ton, shipside, New Orleans. Seven per cent. meal, \$31; 7½ per cent. meal, \$32; 8 per cent. meal, \$33, short ton, here. Loose hulls, barely steady, at \$10.50@sacked, \$12.50, delivered here.

**Dallas.**

(Special Wire to The National Provisioner.)

Dallas, Tex., September 14, 1916.—Cottonseed oil market, unsettled; some sales today of prime crude at 66@66½c. Prime summer, yellow bleachable oil, 73c. Prime, loose cake, \$32@32.50, f. o. b. Galveston.

Do you want a good position? Look for it on page 48.

# COTTONSEED OIL

## WEEKLY REVIEW

THE NATIONAL PROVISIONER is official Organ of the Interstate Cottonseed Crushers' Association, the Texas Cottonseed Crushers' Association, South Carolina Cottonseed Crushers' Association, the Georgia Cottonseed Crushers' Association, and the Mississippi Cottonseed Crushers' Association.

**Generally Firm Undertone—Speculative Liquidation for a Time—Not Much Crude Oil Moving—Consumers More Anxious About Supplies—Seed Situation Mixed—Prices High—Slightly Better Export Trade.**

The activity in the cotton oil market has been confined principally to the contract department. At the South the volume of business has not been large. A great deal is still heard concerning the high prices for cottonseed and the slow movement of new crude oil. This feature is the more surprising when considered with the heavy ginning of cotton. It is predicted that the next ginning report will be quite as bearish on the surface as the recent figures which gave the amount of cottonseed ginned to September 1 at 850,000 bales against 464,000 last year.

There have been private reports of seed having been bought speculatively higher than \$55 a ton. It is not asserted that the basis through the South is near \$55, but it is claimed that at some local points the high levels have prevented mills from purchasing and crushing. Some of the large refiners place the seed level at a trifle higher than \$40 a ton, which represents the highest price on record for this period of the season.

The belief has frequently been expressed

that due to the heavy early ginning of cotton and the effect of the high prices in stimulating the movement of seed, resultant hedge selling, would check advances in the New York contract market. The theory has been that speculative buying would be offset by the hedge selling. To this period, there has been more or less hedging, but this has been swallowed up and it remains to be seen whether the movement of crude oil will come forward with accumulative force.

The sentiment would be more bearish were it not for the realization that consumers in many instances have held aloof from the market awaiting a decline and the effect of southern selling of new oil. Now the view is accepted in many quarters that many users of cotton oil will be compelled to enter the market very soon. In partial confirmation of this view, there has been a narrowing of differences in the local contract market. There have been tenders of more than 12,000 barrels of September oil at New York which were readily absorbed and the Western interests who saw fit to place a little oil in store believing in narrow differences evidently did the proper thing.

Aside from the buying of cotton oil for compound lard makers, butter interests and in the way of distribution for dressing pur-

poses, there is very little doing. Tallow has risen to higher than 9c. a pound, yet the level is far below that of cotton oil and the soap trade is not very much interested in cotton oil. The competitive power of peanut oil, soya bean oil and coconut oil is still dwelt on, although the loss in cotton oil consumption because of these other oils thus far has not been very important.

Export trade has picked up slightly. This betterment has not been unheralded; for some weeks the foreign demand has been slow and the contracts placed here to date number materially under the normal. It is understood that the major part of the foreign business is confined to the north of Europe.

Those who have been conspicuous speculatively in the oil market now contend that the technical position of the list has been improved. Fluctuations in cotton and lard are still closely followed. The trade did not ignore claims of heavy foreign buying of lard, nor did they seem disposed to lose sight of the fact that the average date for cotton frost is close at hand. A heavy frost through the southern states the latter part of this month would give cause for further pessimism relative to the cotton crop production, which at this time is being estimated at slightly

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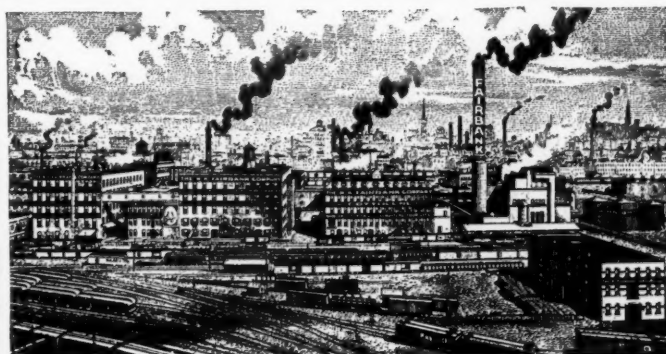
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under 12,000,000 bales against 11,150,000 last year.

On Wednesday the market was very irregular. Prices opened at a big advance on the strength of hard and reports of large buying of hog products for France and the Belgian Relief, but later became weak and more than lost the early advance.

Closing prices, Saturday, Sept. 9, 1916.—Spot, \$9.75; September, \$9.76@10; October, \$9.97@9.99; November, \$9.82@9.84; December, \$9.87@9.88; January, \$9.92@9.94; February, \$10@10.03; March, \$10.24@10.25; April, \$10.25@10.40. Futures closed 9 lower to 1 advance. Sales were: November, 1,100, \$9.98@9.96; December, 1,300, \$9.86@9.83; January, 4,000, \$9.91@9.87; February, 2,700, \$9.94@9.90; March, 200, \$10; April, 3,200, \$10.25@10.20. Total sales, 12,700 bbls. Prime crude, S. E., new, \$8.73, nom.; prime crude, Valley, nom.; prime crude, Texas, nom.

Closing prices, Monday, Sept. 11, 1916.—Spot, \$9.65@10; September, \$9.70@9.83; October, \$9.80@9.90; November, \$9.68@9.69; December, \$9.71@9.73; January, \$9.78@9.79; February, \$9.85@9.86; March, \$10.05@10.06; April, \$10.10@10.25. Futures closed 6 to 19 lower. Sales were: October, 1,800, \$9.89@9.76; November, 2,800, \$9.77@9.55; December, 4,800, \$9.80@9.62; January, 15,500, \$9.82@9.69; February, 700, \$9.85@9.78; March, 7,600, \$10.12@9.95. Total sales, 33,200 bbls. Prime crude, S. E., new, \$8.67, nom.; prime crude, Valley, nom.; prime crude, Texas, nom.

Closing prices, Tuesday, Sept. 12, 1916.—Spot, \$9.75@10; September, \$9.75@9.95; October, \$9.85@9.90; November, \$9.72@9.74; December, \$9.75@9.78; January, \$9.83@9.84; February, \$9.83@9.95; March, \$10.08@10.09; April, \$10.10@10.25. Futures closed 5 higher to 2 lower. Sales were: October, 2,900, \$9.90@9.80; November, 5,000, \$9.74@9.67; December, 3,000, \$9.75@9.72; January, 7,600, \$9.87@9.79; February, 100, \$9.91; March, 6,100, \$10.11@10.05. Total sales, 24,700 bbls. Prime crude, S. E., new, \$8.67, nom.; prime crude, Valley, nom.; prime crude, Texas, nom.

Closing prices, Wednesday, Sept. 13, 1916.—Spot, \$10.10@10.50; September, \$10.10@10.25; October, \$10.13@10.15; November, \$10.07@10.09; December, \$10.07@10.09; January, \$10.15@10.18; February, \$10.30@10.37; March, \$10.48@10.52; April, \$10.55@10.70. Futures closed 28 to 47 higher. Sales were: September, 200, \$10.15@10.05; October, 6,100, \$10.15@9.95; November, 1,800, \$10.02@9.80; December, 4,800, \$10.09@9.88; January, 11,000, \$10.18@9.99; February, 300, \$10.35@10.34; March, 10,500, \$10.51@10.25; April, 100, \$10.40. Total sales, 35,000 bbls. Prime crude, S. E., new, \$8.87, nom.; prime crude, Valley, nom.; prime crude, Texas, nom.

Closing prices, Thursday, Sept. 14, 1916.—Spot, \$10@10.50; September, \$10.04@10.29; October, \$10.13@10.15; November, \$10@10.02; December, \$10.02@10.04; January, \$10.05@10.07; February, \$10.05@10.25; March, \$10.33@10.35; April, \$10.35@10.50. Sales were: September, 100, \$10.20; October, 2,200, \$10.56@10.15; November, 4,600, \$10.40@10.01; December, 7,500, \$10.38@10.02; January, 17,600, \$10.37@10.03; March, 16,000, \$10.61@10.32; April, 100, \$10.63. Total sales, 48,700 bbls. Prime crude, S. E., new, \$9.07, nom.; prime crude, Valley, nom.; prime crude, Texas, nom.

SEE PAGE 29 FOR LATER MARKETS.

#### TO CRUSH COPRA AND PALM OIL.

According to trade report arrangements are being made by the Procter & Gamble Company to crush copra and palm kernels at its plant on Staten Island, New York City. Coconut and palm oil production in the United States has largely increased since the European war began, and the increased use of these oils here is shown by the fact that oil importations have continued heavy in spite of the bringing in of the raw material for domestic crushing.

## THE PICARD-LAW COMPANY

### Expert Cotton Seed Products Chemists

Magnificently-equipped laboratories covering 5,500 square feet of floor space. Six highly-educated experienced chemists in analytical department.

Also specialists in the analysis of all  
**GREASES, PACKING HOUSE PRODUCTS, FERTILIZERS,**  
Fuel, lubricating oils and boiler waters.

Main Laboratories,

**ATLANTA, GA.**

Carol'na Branch,  
WILMINGTON, N. C.

## DIFFERENCES IN COTTON OIL AND MEAL YIELDS

### Remarkable Changes Shown by Expert Chemical Analysis

By Dr. Thomas C. Law, The Picard-Law Company, Atlanta, Ga.

We have compiled the average of August seed analyzed in our laboratory for six years and give herewith the comparisons:

	Damaged, Per cent.	Meats, Per cent.	Moisture, Per cent.
1911.....	6.20	57.20	11.75
1912.....	12.16	53.70	11.68
1913.....	1.90	56.40	11.77
1914.....	6.50	55.30	12.12
1915.....	1.70	54.55	11.45
1916.....	4.40	55.65	12.85

The condition of the first seed analyzed this season was very discouraging. The moisture content was the highest we have ever known, and the oil and ammonia were consequently low. This situation has gradually improved until the seed being analyzed now indicate a quality which measures up well with the average of the past four years, and is considerably better than the seed of last August.

We find the average of 1916 compared with this four years' average shows that there should be made from these seed  $1\frac{1}{2}$  per cent. more oil and 66 pounds less  $7\frac{1}{2}$  per cent. ammonia meal. The value of  $1\frac{1}{2}$  gallons of oil and 66 pounds of meal is almost exactly the same. So the value of the products in this year's seed will just about equal the four years' average.

#### Does Fertilizer Use Really Affect Oil Yield?

The most astounding point brought out is that the seed are opposite, as to the oil and ammonia content, when compared with 1915. The difference amounts to 3.08 more gallons of oil and 102 less pounds of meal. Both of these years show extremes in ammonia and oil content.

This is a great blow to the theory that the seed of this section are largely controlled by the amount of fertilizer used. The theory advanced by many was that low oil was due to the lack of potash and we were inclined to believe this, as the indication of the whole

season seemed to establish it as a fact.

It has been a puzzle to chemists for many years as to what controls the quality of seed.

Oil, Per cent.	Ammonia, Per cent.	Av. Gals.	Av. Meal, (7½%)	(7%)
20.70	3.64	45.9	923	988
20.10	3.34	44.4	846	907
20.30	3.48	44.9	882	945
19.65	3.54	43.3	898	962
18.80	3.64	41.1	923	988
20.30	3.24	44.9	821	880

It does seem now that it is more a question of weather conditions than anything else. July, 1915, was very dry, while July of this year was the wettest we have ever known. The amount of fertilizer used the two years were very near the same, and the land was tilled in very much the same manner.

We are not willing to take the position that the weather was the entire cause of the present condition, because we have so often found that September seed were entirely different from August. It seems that frequently the second picking of cotton produced a seed altogether different from the first picking. We will, therefore, wait until our September report is issued before taking a positive stand. We are rather inclined to believe that there is a combination of circumstances and conditions that control the quality of seed.

A comparison between the highest and lowest in oil and ammonia is quite interesting. Our highest analysis shows 22.90 per cent. oil and the lowest 16.05 per cent. The yield from these two seed under the same conditions will be about 16 gallons difference. The highest ammonia is 3.83 per cent. and the lowest 2.62 per cent. There is a difference here of over 300 tons of  $7\frac{1}{2}$  per cent. meal to the ton.

These are extreme cases, but when we find that such variations can occur in only two hundred analyses, it should convince a child

## The Procter & Gamble Co.

Refiners of All Grades of

### COTTONSEED OIL

Boreas, Prime Winter Yellow  
Venus, Prime Summer White  
Jersey Butter Oil  
Aurora, Prime Summer Yellow

Puritan, Winter Pressed Salad Oil  
White Clover Cooking Oil  
Marigold Cooking Oil  
Sterling, Prime Summer Yellow

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**EXPORTERS** **BROKERS**

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## COTTON SEED OIL

### SPOT AND FUTURE DELIVERY

We issue the only Daily Printed Market Letter on Cotton Seed Oil in this country. Sent free of charge to our regular customers.

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THE PORTSMOUTH COTTON OIL REFG. CORP. OF PORTSMOUTH, VA. — AND — THE GULF & VALLEY C. O. COMPANY, LTD., OF NEW ORLEANS, LA.

Will be pleased to quote prices on all grades of Refined Cotton Seed in barrels or loose in buyers or sellers tank cars, f. o. b. refinery or delivered anywhere in this country or Europe.

that we ought to pay more attention to our raw material. The cotton oil industry stands alone in the purchase of an ungraded raw material, and very few materials show the variation that we find in ours.

#### CHINESE SOYA BEAN OIL AND CAKE.

Writing for those not supposed to be posted on the subject, but furnishing nevertheless much valuable information as to China's production of beans, bean oil and bean cake, Consul General Edwin S. Cunningham, of Hankow, China, says:

The soya or soy bean in recent years has become an important article of trade. It grows on a plant from 2 to 3 feet in height and is contained in pods about 2 inches long. The plant is cultivated everywhere, in fields by itself, around rice and similar crops, and as an undercrop to maize and sorghum. There are 25 to 50 varieties of the soya bean, but in commerce only 3 are ordinarily recognized—yellow, green and black.

The yellow bean, which is of greatest importance, is found generally throughout Manchuria, and it is reported that the finest crops come from the highlands to the north of Mukden. The green variety comes from the Liaotung district and the Yalu basin, and the black bean from Liaoyang and the south of Mukden. There are two other varieties, the brown bean and the mottled bean, which are grown to some extent in the Yangtze Valley, but these varieties are of little importance.

The soya bean is put to many uses in the Far East. It is cooked and eaten as a vegetable, made into a sauce or soy, preserved as a pickle, ground into a flour and made into vermicelli, and employed extensively in the manufacture of vinegar. One particular variety, having small yellow seeds, is used in making bean curd. In Manchuria, however, the soya bean is grown almost exclusively for its oil properties and for the residual material called bean cake.

The soya bean contains about 18 per cent. oil. When the hydraulic press method is employed only 11 to 12 per cent. of the oil can be extracted, but with the use of benzene in the chemical process 17 per cent. is obtainable. This oil is used as an illuminant, a lubricant, for culinary purposes, and in the manufacture of soap. In southern China it is also used in the making of waterproof cloth, paper umbrellas and lanterns, and when mixed with lacquer is employed in the manufacture of varnish and printing ink.

Dairen is the center for the bean-oil industry, exporting more than eight times as much as Hankow, its nearest competitor. The oil mills, which are to be found in every town throughout the bean district, are growing in numbers and becoming more modern all the time. The old crush-stone mills worked by animals are rapidly giving way to up-to-date hydraulic, steam, and oil-motor plants. Hankow has about 10 such mills. During 1914 the local exportation of bean oil was 4,714 tons, valued at \$393,759 gold, and during 1915 there were 6,882 tons, valued at \$482,694.

After the oil has been pressed from the bean, the residue is pressed into the round, flat cakes known as bean cake. The product is very valuable as a fodder for animals, and as a fertilizer. By chemical analysis it has the following percentages: Water, 17.71 per cent.; oil, 9.60 per cent.; albuminoids, 42.16 per cent.; carbohydrates, 19.43 per cent.; fiber, 6.54 per cent.; ash, 4.56 per cent. Japan takes practically all the bean cake exported, and the United States none.

The greatest original exporting center for bean cake is Dairen; Newchwang is second, and Hankow a poor third, shipping in 1914 but 127,107 tons, valued at \$2,082,211 gold, while in 1915 the shipments amounted to 148,826 tons, valued at \$2,172,295 gold.

The shipments of soya beans passing through Hankow are, in the main, brought down by the Peking-Hankow Railway, very largely from the Province of Honan. Szechuan is so situated as to be capable of growing enormous quantities of this product, but until better and cheaper facilities for transportation are available its products will have little value beyond that derived from the local consumption. Upon the completion of the Hankow-Szechuan Railway that province will in all probability soon become one of the richest regions in China.

At present, practically no foreign shipments of soya beans are being made, primarily because of the prohibitive freight rates, and secondly because of the 100 per cent. rise in the original cost of the product itself.

#### CHEMICALS AND SOAP SUPPLIES.

(Special Report to The National Provisioner.)

New York, September 14, 1916.—Quotations on chemicals and soapmakers' supplies are as follows: 74@76 per cent. caustic soda, 4@4½c. per lb.; 60 per cent. caustic soda, 4c. per lb.; 98 per cent. powdered caustic soda, 4½@4¾c. per lb.; 48 per cent. bicarbonate of soda, 3c. per lb.; tale, 1½@1¾c. per lb.; 58 per cent. soda ash, 3¼@3½c. per lb.; chloride of lime in bbls., 5@5½c. per lb.; chloride of lime in casks, 4½@5c. per lb.; silex, 2,000 lbs., \$15@20 per ton.

Prime palm oil, 8¾c. per lb.; clarified palm oil in bbls., 10½c. per lb.; genuine Lagos palm oil in casks, 9c. per lb.; palm kernel oil, 12@13c. per lb.; yellow olive oil, 95@96c. per lb.; green olive oil, 93c. per gal.; Ceylon coconut oil, 12½@13c. per lb.; Cochin coconut oil, 14@15c. per lb.; green olive oil foots, 9½@10c. per lb.; cotton oil, 10@10½c. per lb.; soya bean oil, 8¼@8½c. per lb.; corn oil, 8½@8¾c. per lb.; peanut oil, soapmakers, 5 per cent. acidity, 75@80c. per gal.

Prime city tallow, 8½c. per lb.; house grease, 8@8¼c. per lb.; oleo stearine, 12½c. per lb.; brown grease, 7¼@7½c. per lb.; yellow packers' grease, 7½@8c. per lb.; dynamite glycerine, 42½c. per lb.; saponified glycerine, 33½@34c. per lb.; crude soap lye glycerine, 26@31c. per lb.; chemically pure glycerine, 43c. per lb.

Are you in need of a competent employee in some branch of your business? You can get him by using the "Wanted" column on page 48.

## HARDENED EDIBLE OILS

MADE FROM

## VEGETABLE OILS OF ALL KINDS

Oils Hardened to Order

**The American Oil Treating and Hardening Co.**

CINCINNATI, OHIO, U. S. A.

## RUSSIA THE GREATEST MARKET FOR REFRIGERATION.

(From "Russia," a Journal of Russian-American Trade.)

Among the modern developments in Russia which offer wide and lucrative opportunities to American trade and engineering, few are so striking as the demand for modern refrigeration. This is a peculiarly American field, for outside of England's chilled-beef trade with Argentina, no other country shows such an extensive and specialized development of artificial refrigeration.

Russian conditions in this field are complicated. Part of the complication arises from the somewhat sudden development of the urgent need for artificial refrigeration; part of it is due to internal transport and economic conditions; and a third part, very important to the American refrigeration engineer and manufacturer, is due to the practices in regard to refrigeration plants and their installation by foreigners which has produced in Russia rather rigidly fixed conditions with which the American must comply, even at the cost of modifying considerably his accustomed ways of doing business.

As an offset to this very clear necessity for the American's adopting a new way of doing his refrigerating plant business, there is the great compensation that long credits are not demanded by the Russian in this type of business.

Russians pay for refrigerating plants, according to a member of the Petrograd Committee, usually on the following scheme: From one-fourth to one-third of the total sum estimated for the refrigerating work is paid with the order therefor; another one-half to one-third is paid when all the pieces of equipment are delivered at the point where the plant is to be erected; of the remainder of the price, 5 to 10 per cent. is retained by the Russian purchaser during the whole time of the guarantee required from the contractor for satisfactory operation of the plant; this guarantee is usually for six months in the case of refrigerating plants which are to be operated twenty-four hours

a day; and twelve months for plants operating only twelve hours a day.

The guarantee begins to run from the date of operation of plant. When operation is begun, the purchaser usually pays that portion of the price remaining between the sums he has already paid and the small percentage which is retained to cover the guarantee. It will be seen that these conditions do not savor particularly of the long credit which somewhat troubles the American when dealing with the Russian buyer.

One of the most significant items for the American refrigeration firm is the fact that the building and equipment of new plants in Russia, which had become rather active during the five years preceding the war, has been taken out of the hands of the German firms which secured practically all the contracts in that direction during those years. There remains now only one Russian firm, that of F. Krull of Reval.

The introduction into Russia of foreign refrigerating machinery has been due in considerable part to a Cold Storage Committee appointed under the Russian Ministry of Commerce; this committee is semi-official, and admits certain paying members. The Russian Government itself is represented on the committee by a special representative of each Ministry. This first refrigeration committee was followed by a second one established in Moscow, and branches which serve as instrumentalities for spreading the agitation and instruction in favor of artificial refrigeration were established in many of the large Russian towns.

The introduction of German enterprise into this field seems to have been due in considerable part to the urgency of Dr. L. Edgar De Cramm who was president of a section of the Second International Congress of Refrigeration at Vienna, in 1910; and who was active in inducing German firms to establish branches in Russia for the building of refrigerating and cold storage plants. Dr. De Cramm has himself written: " . . . having Germany as our neighbor, my attention was particularly drawn to that country.

As a direct result I introduced the Riedinger Company, of Augsburg, Germany, into Russia, who started with an independent Russian Share Company, so as to be in a position to execute orders in Russia with full protection of the Russian law, as a Russian company, only this giving the right to close government orders. Others companies followed this example and the Humboldt people in Germany, the Borsig Locomotive Works, Berlin, and others, started with their own Russian companies. All these companies, as well as the Krull Company, in Reval, have been over-ordered mostly for government orders, but the war has stopped the execution of many orders and all the companies, being established with German money and managed by German directors have been compelled to liquidate according to an Ukase of the Czar."

Adaptation to the peculiarities of the Russian market, which this journal has urged as a prime condition of success in trade with Russia, is perhaps more urgent in the field under discussion than in almost any other. As has been said above, there is a very large and very profitable field for American refrigeration engineering, and a certain amount of American refrigerating machinery, in Russia. But this can be secured by the American only if he will adapt his methods to the habits and procedures already firmly established in Russia.

The rewards to be gained by skillful adaptation to Russian requirements will amply repay departures from the established routine of American practice. This is not to say that the refrigeration business in Russia is in principle any more difficult to carry on than most other branches of business which are necessarily conducted according to practices which vary more or less from those of America. The requirements for artificial refrigeration in Russia, as they will be developed for the first five years following peace, are neither difficult nor excessive.

It seems well to describe here something of the special fashion in which the Russian buys his artificial refrigeration. His practice requires a good deal of adaptation from the American—or it may seem like a good deal of adaptation to those occasional Americans who do not yet realize that adaptability is one of the things the successful seller has to sell. It might be worth while to make up for certain types of business minds a little booklet describing what the seller is obliged to sell in addition to his goods in order to sell the goods themselves. In respect to Russian trade in particular, adaptability on the part of the seller, and especially the American seller, goes into the bill—as in fact it does everywhere else in the world.

### How the Russian Buys Refrigeration.

How the Russian buys refrigeration is declared in general terms as follows by V. N. Roolev, member of the Petrograd Committee of Refrigeration, in a recent article.

In Russia, says Mr. Roolev, the buyer of a refrigerating plant or cold storage plant, does not himself plan a plant in general, or design the details. He furnishes bidders for the contract for erecting his plant with a general statement of the conditions which the proposed plant must fulfill; and the local conditions affecting the operation of the plant.

(Continued on page 34.)

## Wanted--Calf Rennets

### TO BUTCHERS AND PACKERS:

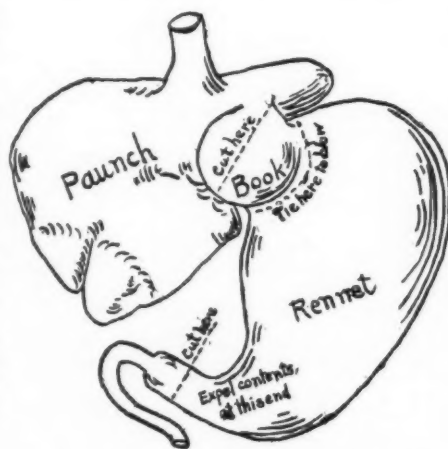
We are in the market for large quantities of Domestic Calf Rennets, prepared for shipment by blowing and drying or in the green state, cut open and packed flat in salt. Butchers and Packers will find it profitable to save the stomachs of all young calves slaughtered, and we will be pleased to hear from any party having a quantity of such goods to offer. We pay the freight charges on all shipments. Circulars giving the most approved methods of handling rennets in either the dry or salt form will be sent on request.

Yours truly,

**Chr. Hansen's Laboratory, Inc., Little Falls, N. Y.**

Manufacturers of

Chr. Hansen's Danish Rennet Extract, Danish Butter Color and Danish Cheese Color. Lactic Ferment Culture for ripening Cream in Butter Making and Milk in Cheese Making. Rennet Tablets and Cheese Color Tablets for Farm Cheese Making.





# THE WEEK'S CLOSING MARKETS

## FRIDAY'S GENERAL MARKETS.

### Lard in New York.

New York, September 15.—Market strong. Western steam, \$14.80 nom.; Middle West, \$14.80@14.90; city steam, 14 $\frac{1}{2}$ @14 $\frac{3}{4}$ c. nom.; refined Continent, \$15.70; South American, \$16.20; Brazil, kegs, \$17.20; compound, 11 $\frac{1}{2}$ @11 $\frac{3}{4}$ c. nom.

### Marseilles Oils.

Marseilles, September 15.—Copa fabrique, 146 fr.; copa edible, — fr.; peanut fabrique, 140 fr.; peanut edible, — fr.

### Liverpool Produce Market.

Liverpool, September 15.—(By Cable.)—Beef, extra India mess, 175s.; pork, prime mess, 147s. 6d.; shoulders, square, 79s.; New York, 74s.; picnic, 71s.; hams, long, 102s.; American cut, 101s.; bacon, Cumberland cut, 95s.; long clear, 98s.; short back, 91s.; bellies, clear, 98s. Lard, spot prime, 81s. 6d.; American refined, 28-lb. box, 81s. 6d.; October, 80s. 3d. Lard (Hamburg), nom. Tallow, prime city, 49s.; New York City special, 50s. Cheese, Canadian finest white, new, 105s. Tallow, Austrian (at London), 45s. 6d.

## FRIDAY'S CLOSINGS.

### Provisions.

The market was firm but quiet. Hogs were higher and with limited offerings of product the market improved.

### Tallow.

The market is very firm. Demand has been good and offerings were limited. City specials loose is quoted at 9 $\frac{1}{2}$ c.

### Oleo Stearine.

The market is firm with the better tone in all animal products. Oleo is quoted at 12 $\frac{1}{2}$ c.

### Cottonseed Oil.

The market was less active, but prices were higher with the better lard market. Offerings were less prominent and crude pressure was not so heavy.

Market closed 15 to 25 higher. Sales, 22,600 bbls. Spot oil, \$10@10.50. Crude, South-east, \$9 nom. Closing quotations on futures: September, \$10.20@10.50; October, \$10.25@10.30; November, \$10.16@10.18; December, \$10.16@10.20; January, \$10.19@10.21; February, \$10.30@10.35; March, \$10.46@10.47; April, \$10.55@10.65.

## FRIDAY'S LIVESTOCK MARKETS.

Chicago, September 15.—Hog market, strong, 10c. higher. Bulk of prices, \$10.35@11.25; light, \$10.30@11.50; mixed, \$9.95@11.50; heavy, \$9.90@11.40; rough heavy, \$9.90@10.10; Yorkers, \$11.10@11.25; pigs, \$7@10.10; cattle, shade higher; beefs, \$6.60@11.25; cows and heifers, \$8.50@9.35; Western, \$8@9.40. Calves, \$8.50@13. Sheep, 10c. lower; lambs, \$7@10.90; Western, \$7.25@10.90; Native, \$6.80@8; Yearlings, \$7.60@9.15.

Omaha, September 15.—Hogs steady, at \$10.25@11.

Buffalo, September 15.—Hogs steady; on sale, 5,600, at \$11@11.60.

Kansas City, September 15.—Hogs higher, at \$10.40@11.05.

St. Joseph, September 15.—Hogs strong, at \$10.20@10.90.

Sioux City, September 15.—Hogs higher, at \$10.25@10.85.

Louisville, September 15.—Hogs steady, at \$10.40@11.05.

Indianapolis, September 15.—Hogs steady, at \$11.20@11.35.

St. Louis, September 15.—Hogs steady, at \$10.65@11.30.

## PACKERS' PURCHASES

Purchases of livestock by packers at principal centers for the week ending Saturday, September 9, 1916, are reported as follows:

Chicago.		Hogs.
Armour & Co.	18,800	
Swift & Co.	8,500	
Wilson & Co.	6,700	
Morris & Co.	4,600	
G. H. Hammond Co.	4,700	
Anglo-American Provision Co.	3,900	

Miller & Hart, 2,200 hogs; Independent Packing Co., 900 hogs; Western Packing & Provision Co., 3,300 hogs; Boyd, Lunham & Co., 3,200 hogs; Roberts & Oake, 1,500 hogs; Brennan Packing Co., 2,900 hogs; others, 8,200 hogs.

Kansas City.		Cattle.	Hogs.	Sheep.
Armour & Co.	6,585	3,560	2,278	
Fowler Packing Co.	517		2,302	
Wilson & Co.	4,830	4,284	2,778	
Swift & Co.	6,261	4,990	5,450	
Cudahy Packing Co.	4,828	1,850	5,450	
Morris & Co.	4,738	3,521	2,145	
Others	930	166	20	

Rice & Kirk, 1,908 hogs; Graybill & Stephenson, 377 hogs; Independent Packing Co., 451 cattle; Schwartz, Bolen & Co., 77 cattle and 2,077 hogs; Blount 123 cattle and 1,156 hogs; John Morrell & Co., 499 cattle and 183 hogs; Wolf Packing Co., 56 cattle; Heil Packing Co., 461 hogs.

Omaha.		Cattle.	Hogs.	Sheep.
Morris & Co.	2,621	3,025	6,011	
Swift & Co.	3,311	2,543	16,650	
Cudahy Packing Co.	3,118	2,819	15,657	
Armour & Co.	3,953	1,780	15,902	
Swartz & Co.		265		
J. W. Murphy		3,497		

Lincoln Packing Co., 71 cattle; South Omaha Packing Co., 38 cattle; Kohrs Packing Co., 555 hogs.

St. Louis.		Cattle.	Hogs.	Sheep.
Morris & Co.	5,038	3,670	1,785	
Swift & Co.	6,249	3,316	2,030	
Armour & Co.	5,205	2,396	2,407	
Independent Packing Co.	475			
East Side Packing Co.	193			
J. H. Bolz Provision Co.		364		
Heil Packing Co.		114		
Carondelet Packing Co.		104		
Sartorius Provision Co.		240		
American Packing Co.		158		
Others	689	12,938	1,298	

## SLAUGHTER REPORTS

Special reports to The National Provisioner show the number of livestock slaughtered at the following centers for the week ending September 9, 1916:

CATTLE.		Cattle.	Hogs.	Sheep.
Chicago	22,806			
Kansas City	27,872			
Omaha	12,667			
East St. Louis	17,989			
St. Joseph	5,899			
Cudahy	510			
Sioux City	2,813			
South St. Paul	6,804			
New York and Jersey City	8,082			
Philadelphia	2,970			
Pittsburgh	950			
Oklahoma City	2,638			

HOGS.		Cattle.	Hogs.	Sheep.
Chicago	51,312			
Kansas City	22,360			
Omaha	12,667			
East St. Louis	25,083			
St. Joseph	12,593			
Cudahy	6,012			
Sioux City	17,208			
Ottumwa	5,200			
Cedar Rapids	3,967			
South St. Paul	10,527			
New York and Jersey City	15,139			
Philadelphia	4,459			
Pittsburgh	1,651			
Oklahoma City	10,961			

SHEEP.		Cattle.	Hogs.	Sheep.
Chicago	50,005			
Kansas City	20,464			
Omaha	40,339			
East St. Louis	9,753			
St. Joseph	9,254			
Cudahy	214			
Sioux City	2,925			
South St. Paul	2,366			
New York and Jersey City	32,246			
Philadelphia	7,796			
Pittsburgh	1,690			
Oklahoma City	32			

## RECEIPTS AT CENTERS

SATURDAY, SEPTEMBER 9, 1916.

	Cattle.	Hogs.	Sheep.
Chicago	600	7,000	500
Kansas City	200	500	
Omaha	300	4,000	
St. Louis	400	2,000	400
St. Joseph	100	1,800	
Sioux City	200	2,000	500
St. Paul	500	300	50
Oklahoma City		1,800	
Fort Worth	200		
Milwaukee		725	
Denver	301	74	13,633
Louisville	400	1,200	100
Cudahy		682	
Indianapolis	200	4,000	250
Pittsburgh		3,000	1,000
Cincinnati	70	703	300
Buffalo	750	4,000	1,400
Cleveland		1,000	
New York	525	1,276	2,154

MONDAY, SEPTEMBER 11, 1916.

Chicago	25,000	31,000	18,000
Kansas City	32,000	10,000	9,500
Omaha	15,500	4,000	33,000
St. Louis	13,100	7,000	2,100
St. Joseph	3,500	3,000	4,000
Sioux City	8,000	2,000	200
St. Paul	8,800	6,000	5,500
Oklahoma City	800	1,500	150
Fort Worth	3,000	5,000	200
Milwaukee		340	
Louisville	4,700	4,200	1,200
Detroit		50	
Cudahy		500	
Indianapolis	1,450	5,000	350
Pittsburgh	2,000	6,000	5,500
Cincinnati		2,897	
Buffalo	4,400	15,600	8,000
Cleveland	1,000	3,000	4,000
New York	3,664		8,047

TUESDAY, SEPTEMBER 12, 1916.

Chicago	7,000	10,000	15,000
Kansas City	23,000	15,000	12,000
Omaha	9,800	7,000	29,000
St. Louis	7,000	8,000	2,600
St. Joseph	2,300	5,000	500
Sioux City	1,100	3,000	200
St. Paul	3,000	3,000	5,000
Oklahoma City	1,200	4,200	200
Fort Worth	3,500		
Milwaukee		2,164	
Louisville	200	500	100
Detroit		1,400	
Cudahy		15,000	
Wichita		4,276	
Indianapolis	1,200	8,000	750
Pittsburgh		2,000	500
Cincinnati	500	2,584	500
Buffalo	550	6,500	2,400
Cleveland		1,000	
New York	743	1,505	2,110

WEDNESDAY, SEPTEMBER 13, 1916.

Chicago	16,000	21,000	20,000
Kansas City	9,600	9,000	14,000
Omaha	5,000	5,000	23,000
St. Louis	5,900	8,000	2,100
St. Joseph	1,500	3,000	4,000
Sioux City	1,800	4,000	800
St. Paul	4,000	4,000	1,000
Fort Worth	3,500	3,500	200
Milwaukee		4,433	
Louisville	200	1,002	350
Detroit		2,700	
Cudahy		500	
Wichita		1,464	
Indianapolis	1,400	8,000	700
Pittsburgh		2,000	500
Cincinnati	1,900	2,861	1,200
Buffalo	300	3,000	1,000
Cleveland	80	2,000	2,000
New York	2,644	4,760	3,416

THURSDAY, SEPTEMBER 14, 1916.

Chicago	4,000	12,000	23,000
Kansas City	5,000	6,000	12,000
Omaha	4,300	7,300	29,000
St. Louis	2,500	6,500	1,000
St. Joseph	2,000	6,000	9,000
Sioux City		3,000	
St. Paul		3,000	
Oklahoma City	500	5,000	
Fort Worth	3,100	2,300	300
Milwaukee		1,484	
Louisville		2,300	
Detroit		4,000	
Cudahy		1,000	
Wichita		2,540	
Indianapolis		11,000	
Cincinnati	1,800	3,800	1,200
Buffalo	200	3,200	800
Cleveland		2,000	
New York	1,405	1,488	4,205

FRIDAY, SEPTEMBER 15, 1916.

Chicago	25,000	12,000	15,000
Kansas City	1,000	3,500	
Omaha	1,300	4,000	14,000
St. Louis	2,000	4,500	1,200
St. Joseph	300	3,500	3,000
Sioux City	800	2,000	1,000
St. Paul	2,800	3,800	500
Oklahoma City	200	2,300	1,200
Fort Worth	2,000	1,500	

## HIDE AND SKIN MARKETS

(SHOE AND LEATHER REPORTER)

The hide markets are active and strong under a large and steady demand. The packers are well sold up to present salting.

### Chicago.

**PACKER HIDES.**—Activities continue in the packer hide market. Close to a hundred thousand hides were traded in the period under review and about a hundred and fifty thousand changed hands including the last day of the preceding week. All the popular selections but butt branded steers were taken. These could have been sold, but sellers were arbitrary in their demands for advances. The entire list is decidedly firm in tone. Buyers who did not get in on this week's trading will find a market practically bare of offerings except for September slaughter. There are a few lots of old native steers around, but these are the only hides of any quantity in salting prior to current stuff. Some killers have moved this month's kill in certain lines. Cattle are coming with considerable freedom, attracted largely by the high prices as well as the running out of pasturage. From now on big runs are expected every week, with the range stuff showing up well in the river markets. Steer stuff still predominates in the local live stock market. Native steers were moved in odd parcels, more in the nature of clean ups of tag ends. Two batches of July-August kosher native steers aggregating 3,000 hides moved at 25½¢, and two trades in August extreme light native steers aggregating 6,000 hides were put through at 25¢. No regular natives were moved this week. These last sold at 26¢. Further business is possible upon payment of 26½¢ for late August and September kill. Some June kill is offered at 25½¢, and mid-winter goods at 23¢. Texas steers went at 24¢ for 6,000 August and September heavy-weights. This establishes a new price. About 5,000 heavy and light weight Texas steers of August kill sold early in the week at 23½¢, and 23¼¢, respectively. A trade in 12,000 August light Texas steers was put through at 23¼¢. The top prices rule for further business in Texas steers. Butt branded steers did not sell. These last moved at 23¼¢. Nothing now available at under 23¼¢, and some sellers talk 24¢. Production is small and stocks well in hand. Colorado steers sold at 23¢, a new price, being ¼¢ above prior business. About 3,000 sold at this rate. More available at that figure and some sellers talk 23¼¢. Branded cows went at the new price of 23¼¢, involving 9,000 August hides. This is in line with the underweight Texas steers values. Production is

still small, but is expected to pick up from now on, seeing that the range cattle are coming to market with more freedom. Heavy cows were accepted at the former price of 25¢. Two packers moved about 7,000 October, November and December kill. Light cows received considerable attention. The call for the light end of the hide list has sprung up within the past two weeks. Late in the preceding period 10,000 40-45 lbs. hides moved at 24½¢, and close to 30,000 July-August-September hides moved at 25¢ this week. Native bulls were not moved. The market is generally sold out to the end of the year at 22¢. This is a nominal quotation for further business. Branded bulls were quiet. Nominal market is considered at 18@18½¢ for northern hides and 19¢ for light average southern. Stocks are small and production is limited.

Later.—The market is strong. Available stocks limited and consist mostly of current kill. Six thousand August and early September Colorado brought 23¢, 1,500 May native steers sold at 25¼¢. One car of July kosher native steers brought 25½¢.

**COUNTRY HIDES.**—The week was practically devoid of movement. Tanners and dealers cannot get together in their ideas. Buyers are insisting upon getting goods at last sale figures and their needs are not so urgent that they are forced to accept sellers' propositions. Dealers view the underlying conditions bullishly and are demanding more money if movement is to continue. About half a cent separates them and neither will concede to assist business. Heavy steers here are quiet. Last sales were at 20@20½¢, locally and from nearby markets. Sellers are endeavoring to get 21¢ in order to shorten the spread between country and packer native steers, but buyers of country hides are an entirely different set from the packer operators. Heavy cows are wanted at 19¢ for mainly short haired quality as currently received. Dealers are demanding 20¢, but it is believed business could be done at 19½¢ if the bid was forthcoming. Available stocks are moderate, as summer receipts contain more of the under 60 lbs. hides. Arrivals from the Northwest though are showing some increase in average weight, indicating the presence of more heavy cows than formerly. Bulls were not reported sold this week. Business last week was at 19½¢ for current arrivals. Only a couple of dealers were willing to take on business at this figure, the rest of them demanding 20¢ firmly, owing to better quality, and improvement in the packer light hide market. This is the status of the situation at the close of the week. Tanners stand ready to take on further lots at last sale figures. No seconds were reported sold alone. These are quoted at the usual cent discount. The situation in the originating sections is

steady at 19½@20¢, delivered basis for 25 lbs. up hides as to varieties and sections. Minneapolis market reported business in heavy hides over 45 lbs. at 19½¢, delivered basis this week. Extremes were moved in the Minneapolis market at private terms, supposed to be 22½¢, the asking figure for the car in question. No business was reported here, but numerous efforts to effect purchases were made by tanners who bid 23¢ for the current arrivals. Sellers consider them worth at least 22½¢, owing to better quality and the activities lately noted in packer light cows. Branded cows were quiet. Nominal market is considered at 17½¢ flat basis for country cows; most holders talk 18¢, however. Stocks are meager and the quotations are nominal. Country packer branded hides are quoted at 21@22¢ nominal for average lots. Business was done in some of the selected hides from the larger outside packers at close up to big packer rates. Bulls were quiet in the ordinary country run. A fair call is noted for picked over assortments and business of this character was done in other markets. Country run of local bulls quoted at 17@17½¢ for business and 17½¢ usually asked. Light weight Ohio bulls sold at 18½¢. There is but little call for the heavy end alone at present. Usually the heavy bulls go better than the lights. Country packer bulls sold up to 21½¢ in slaughter ahead to the end of the year. Bids at 21¼¢ reported refused for light end. Other sales going on as low as 20¢ for the poorer lots. Kipskins are in feverish demand and supplies are nil. Production should pick up soon, but operators do not expect arrivals to measure up with former years, as the calf kill is considerably in excess of normal. The run of calves is keeping up much longer than usual. Country kipskins last sold locally at 24¢. Holders now talk 25¢ firmly. City skins recently made 26½¢, and now as high as 30¢, is asked by those having skins for sale. Packer skins lately sold at 28½¢ in slaughter ahead to November. Nothing available for sale except future slaughter and no price will be put on such skins as yet.

Later.—Market is strong but quiet. Tanners continue to insist upon old rates and sellers demand ¼¢ higher prices.

**CALFSKINS** were fairly active. Local city skins out of first salt opened the week with movement in one carload at 32½¢, following which two cars brought 33½¢. Efforts to get more at that price were futile, collectors demanding 34¢ firmly. Outside city calfskins sold at 31½¢ of Chicago collection and country skins moved at 30½@31¢. Outside city skins recently sold up to 33¢ of exceptional quality. Owing to advance in city skins, outside varieties are now held at 33¢ firmly. Packer calfskins sold at 30¢, three killers each selling a car of July-August slaughter. More are available at 30¢ of such take-off and September kill is held at 37¢. A car of outside packer calfskins sold at 35½¢ with kipskins in connection at 28¢ f. o. b. at eastern points. Deacons are quiet and quoted at \$2.15@2.35 and light calfskins are quoted at \$2.35@2.55 nominal.

**HORSEHIDES** are steady to strong in tone. Country run of summer hides quoted at \$6.75 paid and bid and \$6.85 asked. City hides \$7 bid and \$7.25 asked. Seconds quoted at the usual \$1 reduction with ponies and glues at \$2.50@3 and coltskins at \$1@1.50 nominal.

**HOGSKINS** are selling as fast as available in small parcels to the regular trade at 80@90¢ for country run with rejected pigs and glues out at half price. Collections in the summer season are limited. No 1 pigskin strips are firm at 10@10½¢, last paid; No. 2s quoted at 9@9½¢, and No. 3 strips at 5@6¢, last paid as to measurements.

**SHEEP PELTS.**—As was expected, pullers took everything offered in the line of packer skins at strong figures. River sheepskins opened with sales at \$1.50 and are now held at \$1.55. Local sheep sold at \$1.55 and the market is bare of offerings of skins in salt. River lambskins sold early in the week at \$1.62½ and Chicago goods went at \$1.65. Dry western pelts are steady at 23@23½¢.

(Continued on page 43.)

## WHY WAIT?

We have those who are burned out—others who are threatened by the Health Boards—or Sanitary Experts. Why not have a clean, wholesome, fire-proof and daylight plant, recommended by the Health Department and inspected daily by the public? IT PAYS.

Our Engineering Department has solved the Packing House and Abattoir problems—and can solve yours.

**C. H. A. Wannenwetsch & Company, Buffalo, N. Y.**

Manufacturers of the Wannenwetsch Sanitary Rendering and Drying Apparatus

# LIVE STOCK MARKETS

## CHICAGO

(Special Letter to The National Provisioner from the National Live Stock Commission Co.)

Union Stock Yards, Chicago, Sept. 13.

This week's liberal run of cattle at all points is in line with general expectancy, so comparison with last week's receipts, at which time railroad facilities were only being resumed, would hardly be a criterion to go by. Suffice it to say that Chicago received 23,643 cattle last week, and for the first three days of this week receipts in Chicago will total approximately 50,000, including about 10,000 Western "rangers." But despite the heavy supply, after a logical decline of 15¢@25¢, on Monday, the trade rounded to on Wednesday and good to choice cattle sold 10¢@15¢, higher, while other kinds were steady to strong.

A liberal percentage of the cheaper grades of killing steers in this week's heavy run of cattle has naturally had more or less of a "bearish" influence on the market for butcher-stuff, and values have eased off 10¢@15¢, on canners and also on the choicer grades of cows and heifers, while the medium to good, or, in other words, the "in-between" grades of she-stuff, are off 15¢@25¢. Trade was active at the decline, particularly on the two extremes, canners and the better grades of cows and heifers, which kinds are scarce, and, no doubt, will hold up in price right along. While the calf market is active at the "high point" of the season on veal calves, the bull market, on the other hand, has been a rather dull and stagnant affair, prices being anywhere from 20¢@35¢, lower than ten days ago. Near-future prospects are unchanged, an expected liberal supply of Western "grass" cattle being a bar to any permanent upturn in the trade for native butcher stuff.

A reasonable downward tendency on the commoner grades of hogs, which are increasing in volume, has brought about a much wider range in hog values, and this condition of affairs will become more pronounced as the weeks go by, and while good hogs have not suffered much decline compared to the high spot in the trade, the commoner grades are off quite a little and the general market displays a settling tendency, which is indicative of what can be expected when receipts become heavier. Wednesday's trade ruled active and strong, even on the commoner grades of hogs, with quotations as follows: Prime, 200 to 325 lbs., butchers and heavyweights, \$11.10¢@11.30¢; prime light hogs, weighing 170 to 190 lbs., \$10.65¢@10.90¢; good mixed hogs carrying a good barrow top, \$10.40¢@10.70¢; packing grades, \$10¢@10.30¢; thin and grassy kinds, as well as rough packing grades, in small lots, \$9.50¢@9.85¢, with healthy pigs from \$8.75¢@9.50¢.

With Wednesday's receipts of sheep and lambs estimated at 20,000 head, early sales showed but little change as compared with the previous session, although there was a tendency on the part of buyers to bid lower, many offers looking 10¢@15¢ lower. In a general way, the present market is in a class by itself as compared with any former year. Just when it would seem that conditions invite at least a temporary depression the market is liable to take on new strength and activity and reach new record heights. There seems little doubt that the present high range of values will be well maintained throughout the season, although temporary moderate declines will no doubt occur. Feeders that looked so high a few weeks ago have again reached record-breaking heights this week, and no doubt the number of feeders that have gone to the country up to this time are fewer than any season during the past ten years. We quote: Natives—Good to choice lambs, \$10.75¢@11¢; poor to medium, \$10¢@10.50¢; culls, \$8¢@9¢; fat ewes, \$7.50¢@8¢; poor to medium, \$6.75¢@7.25¢; culls, \$4¢@6¢; aged breeding ewes, \$8¢@8.50¢; young breeding ewes, \$9¢@9.50¢. Westerns—Good to choice lambs, \$11.15¢@11.30¢; fat yearlings, \$8.25¢@8.75¢; fat wethers, \$8.00¢@8.25¢; fat ewes, \$7.60¢@7.85¢; feeding lambs, \$10.30¢@10.60¢; feeding

yearlings, \$8.00¢@8.50¢; feeding wethers, \$7.00¢@7.25¢; feeding ewes, \$5.50¢@6.50¢; yearling breeding ewes, \$10.25¢@10.50¢.

## ST. LOUIS

(Special Letter to The National Provisioner.)

National Stock Yards, Ill., Sept. 13.

Cattle supply for the week ending today was the heaviest of the year, we having received close to 30,000 head, of which about 8,000 head were on the southern side. The run, generally, went to the medium and common grass cattle, and upon this kind the market is 35 to 50¢, lower than a week ago; in fact, in spots the sellers insist that the decline is even greater than these figures. The top for the week on heavy steers was \$10.60, but they were not strictly choice; heavy beefs could be good enough to bring \$11. On the strictly good kind, the market is not far from steady, and as there was a scarcity of real good cattle during the entire week, the market on this grade has been extremely active. The bulk of beef cattle sold for \$7.75 to \$8.75, with the common kinds selling from \$6.25 to \$7.25. Choice to medium yearlings range from \$9.50 to \$10.65; the bulk of the best kinds in this class sold around the \$8.50 mark, with the common grades going at \$6 to \$7.50. Fancy heifers, if light, are quoted at \$8.75¢@10¢; very good ones are going to scale at \$8¢@8.75¢. The Oklahoma and western receipts this week approximated 200 cars. The decline in these was not as great as on native cattle; in fact, on Tuesday and Wednesday of this week the market is higher on this class of steers, especially for anything that shows weight. The top for the week in this division was made on Tuesday when 3 loads of 1,200 lb. steers brought \$7.85. The bulk of the sales in the western division range from \$6.75¢@7.15¢.

Hog receipts are running light, we having received 34,600 head for the week. This amount is hardly sufficient to supply the demand; the consequence has been that prices have held to a steady basis and the market is characterized by extreme activity. A fair amount is being shipped to eastern and outside slaughterers, with the bulk being absorbed by our local packers. The quotations are: Mixed and butchers, \$10.65¢@11.35¢; good heavy, \$11.30¢@11.35¢; rough, \$9.65¢@10¢; lights, \$10.70¢@11.25¢; pigs, \$7¢@10.25¢; bulk, \$10.75¢@11.30¢.

Receipts in the sheep house were right at 10,000 head for the week. As for a number of weeks past there is very little change, indeed, in the condition of the mutton market. The quotation on mutton ewes remains \$7¢@7.25¢, with the bulk going close to the top figure. Breeding ewes are quoted at \$9¢@10¢, but trade in them is rapidly diminishing, and it would require strictly choice ewes to bring the top price. The lamb market is active and considerably higher than a week ago. Best lambs are quoted up to \$11.35¢, and a number of lots have gone to scale during the week at that figure. The range in price on the best grades is \$10¢@11¢, with the common and medium kinds selling at \$8¢@9¢.

## KANSAS CITY

(Special Letter to The National Provisioner.)

Kansas City Stock Yards, Sept. 12.

Today's supply contained 40 cars of Oregon cattle and 50 cars of Colorado, besides the usual nearby offerings, total receipts 21,000 head, not including 2,000 calves. Stockers and feeders sold steady, killing cattle weak to 10¢, lower. Kansas grass is getting good and cattle are putting on weight, which will reduce loading for market, although pretty fair runs are expected right along. Kansas steers sold at \$10.75 today, short fed steers \$10.50, branded yearlings \$10.75, among the best cattle here today. Feeder buying competition helped out on killers, best grass steers selling up to \$8.90, good steers around \$8, plain grass steers weighing 1,100 lbs., \$7; lighter Kansas and Oklahoma steers, \$6¢@6.75¢; Colorado horned beef steers weighing 1,900

lbs., at \$6.80¢; grass cows, \$5.40¢@6.50¢; veal calves up to \$11.

Hog receipts were 15,000 head; market steady at the opening; order buyers paying up to \$11.05, packers \$10.95. The close was around 10¢, lower, bulk of sales \$10.50¢@10.95. Packers are able to gain price concessions for the moment, but the whole situation is remarkably strong, and hogs are cutting up at an enormous profit to packers. Lard ribs and barrel pork are nearly twice as high as a year ago, and the margin above live hogs is three times as great as it was a year ago. Of course, packers have to figure on future probabilities of the market, but an advance of a dollar a hundred on live hogs would not equalize prices.

Receipts of sheep and lambs were 12,000 head, and prices were 10¢, higher, Western lambs selling up to \$11, plain Arizons \$10.25, natives \$10.35, yearlings up to \$8.25, feeding lambs \$9.75¢@10.35¢, breeding ewes \$7¢@9.40¢, including a 4-car lot of young Wyoming breeders weighing 82 lbs. at \$9.20. Packers got some stock direct, bought enroute to market, and the whole situation exhibits a scramble on the part of killers and feeder buyers for material.

## OMAHA

(Special Letter to The National Provisioner.)

South Omaha, Neb., Sept. 12.

The cattle market is just beginning to recover from the demoralization incident to the recent threat of a general railroad strike. Receipts last week were the smallest of the season, 19,000 head, and this week's receipts promise to be about the largest of the season. Prices have fluctuated sharply from day to day, but in the main both native and grass beefs are now selling in pretty much the same notches as they were two weeks ago. Comparatively few corned beefs are coming and the range of prices is very wide, from \$7 for common grassy stuff up to \$10.75 for prime heavy beefs, the bulk of the fair to good 1,000 to 1,300 lb. beefs selling around \$8.75¢@9.75¢. Strictly choice grass beefs are very scarce. Prime heavy Wyoming and Montana grassers sold yesterday and today at \$9¢@9.65¢, but good to choice range beefs are selling at \$7.80¢@8.60¢, fair to good grades largely at \$7.25¢@7.75¢ and common and Mexican steers at \$6.40¢@7.10¢. Grass cows and heifers are selling at a spread of \$4¢@7.10¢, the bulk of the fair to good butcher and beef stock at \$5.85¢@6.45¢. Veal calves are quotably steady at \$8.25¢@11.25¢, and bulls, stags, etc., somewhat lower than last week at \$5¢@7.

Hog receipts have been unevenly distributed and prices have fluctuated sharply, but on an average there has been a substantial advance and prices are right around the high time of the year. Both packers and shippers are buying freely and as usual favoring the light and butcher loads and discriminating against the rough heavy loads. There were about 6,800 hogs here today and the market was uneven, prices ranging from 5¢, higher early to 5¢@10¢, lower later. Tops brought \$10.85, as against \$10.65 last Tuesday, and the bulk of the trade was at \$10.25¢@10.40¢, as against \$10.25¢@10.35¢ a week ago.

Supplies of sheep and lambs have been tolerably liberal, 95,000 last week, but under the influence of vigorous buying by both packers and feeder buyers the trade has been lively and the trend of values upward all along the line. The advance has been pretty close to a quarter as compared with a week ago, the advance extending to practically all grades and weights. Fair to choice fat lambs are selling at \$10.25¢@11¢, yearlings at \$7.25¢@8.25¢, wethers at \$6.50¢@7.50¢ and ewes at \$6¢@7¢.

## NEW YORK LIVE STOCK

WEEKLY RECEIPTS TO SEPTEMBER 11, 1916.

	Sheep and			
	Beefers,	Calves,	Lambs,	Hogs,
New York .....	1,857	2,324	553	3,888
Jersey City .....	4,130	2,117	20,718	10,380
Central Union .....	2,605	498	10,975	871
Totals .....	8,592	4,939	32,246	15,139
Totals last week .....	9,296	7,810	38,937	21,377



# ICE AND REFRIGERATION

## NEW CORPORATIONS.

Paterson, N. J.—C. W. Hallett & Co. has been incorporated with a capital stock of \$25,000, to manufacture ice cream, etc.

## ICE NOTES.

Chicago, Ill.—The building of the Ashland Warehouse & Cold Storage Company has been damaged by fire of unknown origin.

San Francisco, Cal.—Plans are being prepared for the Ogden Packing & Provision Company, Ogden, Utah, for the erection of a cold storage plant at this point.

## ORIGIN, MANUFACTURE AND PRACTICAL APPLICATION OF AMMONIA.

By Dr. Arthur Lowenstein.

(Continued from last week.)

### Inflammability and Explosion of Ammonia.

From time to time attention has been directed to fires or explosions in refrigerating rooms in which a compressor head has blown out and a fire has resulted. A number of such cases have happened in breweries and this subject is now under discussion by the New York Board of Fire Underwriters.

The subject of whether or not ammonia will burn, and under what conditions, has been under investigation in our Research Laboratory for several years. The majority of text-books usually say that ammonia will not burn. As a matter of fact, ammonia will readily put out a flame, which is probably due to its blanketing action. The writer will not be able, owing to the limited time at his disposal, to go into this subject at any length. Several years ago he communicated his views to his associates, R. J. Quinn and S. Drucker, who have been conducting research work along these lines, and they will shortly tabulate these results and present them before one of the scientific societies.

Briefly, however, it may be stated from these experiments that ammonia gas, mixed with air in certain proportions, when ignited

will propagate a flame. Special apparatus has been designed which enables us to determine the conditions under which ammonia will burn, when all known mixtures with air are brought together under suitable conditions; also known mixtures of oxygen and ammonia. These tests were made in steps of 0.5 per cent., using mixtures varying from 1 to 100 per cent. of ammonia in air, both dry and saturated with water vapor.

The results under these conditions were that no visible form of burning was evident until the region of 11 to 13 per cent. of ammonia was reached. It was found that a small yellow flame was produced at 11 per cent. ammonia in air which increased in size with increase of ammonia content until at the proportion of 13.25 per cent. of  $\text{NH}_3$  the burning was complete. At this concentration a yellow flame completely enveloped the glass containing vessel and the combustion was sufficiently violent to shatter the vessel. Above this percentage mixture, no apparent burning occurs. It appears that the limits of inflammation are rather narrow.

It is to be understood that the mixture of air and ammonia mentioned in the experiment cited above were the conditions which obtained in that particular set of experiments. These experiments were made in a darkened room with a black background, so that the appearance of flame could be readily observed. It was necessary to use a heavy glass shield to protect the operator. After the desired mixture was satisfactorily prepared, electrical connection was made by means of an induction coil and platinum wires inserted into the vessel, forming an arc, causing the spark to pass between the platinum knobs of the electrodes. As stated, these results will be published shortly, giving kind of apparatus, etc., and we will not attempt to elaborate on the details at this time.

Another set of experiments, using similar apparatus, were made, but instead of at-

tempting ignition of the mixture with an electric spark, an electrically heated platinum wire was used. As in the preceding, tests were made with a mixture of ammonia and air, varying from 1 to 100 per cent. of ammonia in air. Results were that up to 5 per cent. of ammonia in air no apparent change took place, except the formation of condensed moisture on the sides of the vessel.

From 5 per cent. ammonia to 13 per cent. ammonia in air, there appeared, besides condensed moisture, dense white vapors.

From 13 per cent. to 15 per cent. it was observed that the platinum wire remained incandescent, even after the current was turned off and in addition considerable white vapors were formed.

After 15 per cent. it increased in size with increasing percentages of ammonia up to 19.58 per cent., at which point the mixture violently exploded upon ignition.

Under the condition, mixtures between 19.58 per cent. and 26 per cent. of ammonia in air were explosive. The explosions were very violent, sufficient pressure being generated to shatter the glass container.

From 27 per cent. to 58 per cent. of ammonia in air, the platinum wires remained incandescent after breaking the electrical contact.

From 58 per cent. to 100 per cent. no apparent reaction took place. The wire glowed more dimly under these conditions and ceased to glow immediately upon turning off the current.

In regard to the white fumes mentioned above, these fumes are lighter than air and condense upon the sides of the vessel as crystals when cooled and dried. An insufficient quantity was obtained for quantitative analyses, but positive tests were obtained for nitrates and nitrites.

### When Ammonia Will Burn.

The above results seem to show conclusively that ammonia will burn when mixed

## INSURE YOUR ICE CROP

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You must secure a machine built for hard usage—one that goes and keeps going when you need it most.

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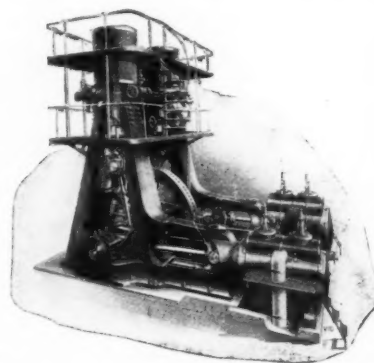
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is made from pure Aqua Ammonia of our own production, thoroughly refined and purified. Send for Free Book and Calendar.

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PHILADELPHIA: Henry Bower Chem. Mfg. Co.  
PITTSBURGH: Penna. Transfer Co.  
PORTLAND, ORE.: Northwestern Transfer Co.  
PROVIDENCE: Rhode Island Whse. Co., Edwin Kewles.  
RIO DE JANEIRO: F. H. Walter & Co.  
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ST. LOUIS: Pillsbury-Becker Eng. & Supply Co.  
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**HENRY BOWER CHEMICAL MANUFACTURING CO., 29th St. and Gray's Ferry Road, Philadelphia, Pa.**

with air in certain definite proportions, and when the proper mixture is ignited the burning is sufficiently rapid to cause an explosion. There seems to be a difference in the percentage mixture which will explode. It was found that 13.25 per cent. ammonia in air, when ignited by an electric spark, exploded, and that mixtures between 19.58 per cent. and 26 per cent. ammonia in air exploded when ignited by an incandescent wire.

This apparent discrepancy is being further studied. It is possible that a complex reaction takes place when using the electric spark and Mr. Drucker suggests that possibly the formation of ozone and the interaction of the latter with ammonia, might occur.

Emphasis must be laid upon the fact that the burning point was not due to the continuous presence of the spark, or heated coil, inasmuch as the explosion was instantaneous upon the closing of the electric circuit for a second.

From the above it is also evident that the burning was not due to the decomposition of ammonia and the subsequent burning of the hydrogen. The ammonia employed for combustion tests was tested 100 per cent. pure and was made from the highest purity ammonium salts of Kahlbaum's manufacture after repeatedly recrystallizing the salts to be sure that the very purest form of ammonia was employed in this experimental work.

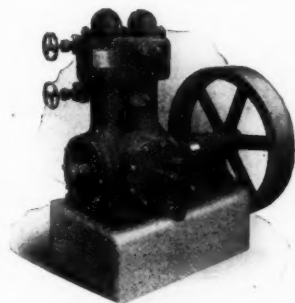
### To Reduce Fire Danger in Ice Machine Room.

As a result of the above experiments, I would suggest that in order to minimize the danger of fire in the ice machine room in case a cylinder head should blow out, that open gas jets and arc lights be dispensed with and that the room be well ventilated.

The writer does not wish it to be construed that the sudden release of ammonia into air is the only possible cause of a fire of the character which results at times. As a matter of fact, it is his opinion that lubricating oil in a very finely divided state at an elevated temperature and pressure when suddenly released into the atmosphere would very rapidly become carbonized and might ignite spontaneously.

In this connection Dr. P. H. Conradsen, of the Galena Signal Oil Co., has published a very interesting article describing the effect of air when suddenly brought into contact with oil in an atomized condition in connection with locomotives operating with superheated steam. In addition to these possibilities, there are, of course, others which might cause fire under a given set of local conditions.

WATCH PAGE 48 FOR BARGAINS



## York Refrigerating Machines

have a distinctive character all their own—in Workmanship, Durability, and Efficiency.

They embody many features not found in other Machines, and yet they are sold at a conservative price—by reason of our large output.

If you are looking for a reliable Machine—one that will give you satisfactory results under the most exacting conditions—you cannot afford to overlook the YORK line of Ammonia Compression and Absorption and Carbon Dioxide Machines.

We are prepared to give you the type of Plant best suited to meet your local needs.

Write for information and prices.

## YORK MANUFACTURING CO.

(Ice-Making and Refrigerating Machinery  
exclusively)

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## DOORS

For Cold Storage  
and Freezers



Have you ever examined our  
"JONES" or "NOEQUAL"

type of Door, and noted the heavy material used in construction, or how the massive "Jones" Automatic Fastener and "Jones" Adjustable Spring Hinges keep the door tight against the double and triple seals of contact.

If not, it's time! You should know why the Big Packers use our doors almost exclusively.

Made with or without trap for overhead rail. Cork insulated. Built for strength. A 96-page illustrated catalog upon request.

### JAMISON COLD STORAGE DOOR CO.

Formerly

JONES COLD STORE DOOR CO.  
Hagerstown, Maryland, U.S.A.

**RUSSIAN REFRIGERATION MARKET.**

(Continued from page 28.)

He requires from the bidders a full and detailed plan with specifications and the estimated cost of the work. He makes the bidder responsible not only for the machinery, but for the correctness of the whole scheme, and the successful operation of the plant in accordance with the calculations.

"Foundations for the building, and other work belonging to construction of the plant, are ordinarily done by the purchaser. The bidder has to deliver the refrigerating machinery, and also all other parts of the refrigerating plant which are not strictly parts of the essential mechanism (such as pipes, air ducts, insulation, fans, pumps, etc.) and often other accessories, such as engine, transmission, belt, and the like, which the bidder himself does not manufacture. The bidder has to install the machinery, and when the entire plant is assembled, to set it in operation, and make tests of the whole plant. In making his bids, plans and estimates, the bidder naturally has to conform to Russian practices—notably in stating all prices in terms of Russian money; and these prices must include import duties, freight and other expenses."

In dealing with plans of equipment and estimates of cost the American refrigeration engineer must consider carefully the effect of Russian import duties upon the delivered cost of the planned equipment. As the tariff now stands he may find it cheaper to have manufactured in Russia heavy iron and steel parts of simple construction, which on account of their great weight would have to pay a heavy import duty. Similar consideration will show him the advisability of using brass or other alloys in places where he may be accustomed to use copper. Cast iron ribbed pipes, for instance, transmission lines, cork insulation, large iron tanks, and certain steam and water pipes with their fittings, can usually be obtained in Russian, of Russian manufacture, at a lower cost than by importing them from abroad.

This statement of course represents the situation as it exists under the present tariff. It is possible, of course, that the import duties will be modified after the war, at least temporarily, and possibly as a result of a commercial treaty with the United States, so as to make the importation of parts less disadvantageous to the contractor.

The experience of the several German firms which entered the refrigeration business during the few years preceding the war, together with these facts as to the cost of certain necessary materials, seems to indicate that American refrigeration firms probably cannot sell directly to Russian customers, on a large scale. Russian law requires that firms undertaking contracts for government refrigeration and storage plants should be Russian firms, and this requirement had a good deal to do with the action of the several German firms who either formed Russian companies in Russia, or established in Russia branches officered by their own engineers and supplied with needed information and material.

American companies or branches so established would be able to deal directly and promptly with prospective Russian customers. It would be better for such branches in Russia to have full authority for concluding

contracts without time-consuming references of the whole matter to the American headquarters. Offering this information as a guide to American firms in order that they may, if they wish to enter into this competition, do so with the necessary full understanding of the conditions they must meet, Mr. Rooley has this to say about German competition, and about certain technical requirements which pertain especially to refrigeration machinery:

There is no doubt that after the war the Germans will make all possible efforts to reconquer the Russian market, and the German refrigerating machinery will have chances of success, first, owing to the energetic and experienced work of German commercial agencies; secondly, owing to the cheapness of the machines, and also that the Russians are accustomed thereto (and habit is a second self). Many refrigerating machines of German source are installed in Russia, and all of them are of good quality. It must be added that the Germans are always ready to comply with all demands of their buyers of technical or commercial character."

In the way of technical requirements and habits, one of the first things to note is that the American nomenclature of refrigeration is entirely unknown to Russians. The British Thermal Unit (B. T. U.) is utterly alien in the continental European markets. Russians expect to see the power of refrigerating machines stated in terms of their refrigerating capacity expressed in great frigories = great calories (1 great calorie = 3.92 B. T. U.) per hour at a given temperature of evaporation of the refrigerant (—10 degs. C.) and of the cooling water (—10 degs. C.). Further, compression machines are almost universal in Russia, though when, owing to particular conditions, absorption machines would be more economical in operation, they would be accepted.

(To be continued.)

**EXPORTS OF DAIRY PRODUCTS.**

Exports of dairy products from New York reported up to September 13, 1916:

**BUTTER.**—Barbados, 462 lbs.; Bermuda, 17,804 lbs.; British Guiana, 2,969 lbs.; British Honduras, 500 lbs.; British West Indies, 3,488 lbs.; Colombia, 946 lbs.; Danish West Indies, 1,375 lbs.; Dutch West Indies, 67 lbs.; England, 830,948 lbs.; Haiti, 2,130 lbs.; Honduras, 400 lbs.; Jamaica, 81 lbs.; Panama, 130 lbs.; San Domingo, 3,852 lbs.; Venezuela, 784 lbs.  
**EGGS.**—Bermuda, 1,230 dz.; Panama, 10,500 dz.; Venezuela, 600 dz.

**CHEESE.**—Bermuda, 6,606 lbs.; Brazil, 1,088 lbs.; British Guiana, 646 lbs.; British West Indies, 1,564 lbs.; China, 51 lbs.; Colombia, 372 lbs.; Costa Rica, 230 lbs.; Cuba, 3,651 lbs.; Danish West Indies, 2,423 lbs.; Dutch West Indies, 675 lbs.; England, 166,405 lbs.; Guatemala, 140 lbs.; Haiti, 206 lbs.; Honduras, 448 lbs.; Jamaica, 614 lbs.; Mexico, 289 lbs.; Panama, 1,322 lbs.; San Domingo, 4,085 lbs.; Scotland, 23,493 lbs.; Venezuela, 242 lbs.

**MUST MARK EGGS IN CANADA.**

The government of British Columbia, Canada, has recently put in force an "Egg Marks Act." It requires that any and all eggs which have been preserved in water glass, lime water, salt, bran, or anything except cold storage, must be stamped plainly with the word "preserved" in gothic lettering, when placed on sale. When they are provincial fresh eggs the receptacle must bear a card with the words "B. C. Fresh" in letters four inches high. Cold storage eggs must likewise be labelled "B. C. Cold Storage," or "Alberta Cold Storage" or "U. S. Cold Storage," according to the source of origin. All stores or shops selling Chinese eggs must display a sign to that effect and

all the eggs must be labelled "Chinese Eggs."

Wholesale dealers, and producers selling at wholesale, are also required to mark on outside of each package the terms "fresh," or "preserved" or "cold storage," as the case may be, together with the initials indicating the province or country of origin, but this marking need not be in letters four inches high, as the retailer is required to use. Eggs not fresh enough for serving as boiled eggs must be marked "cooking eggs."

The officials charged with enforcing this act are empowered to enter any premises within the province, at any time, where eggs are sold or offered for sale, to inspect all eggs on hand and determine the correctness of the markings. Severe penalties are provided for non-compliance with the provisions of the act.—Ice and Refrigeration.

**A BOOK ON VINEGAR.**

A recently-published technical work of great interest is "Vinegar: Its Manufacture and Examination," by C. Ainsworth Mitchell, with five plates and 49 other illustrations. Price, net, \$2.75. There are very few reliable books on vinegar manufacture. This very practical and thorough work will therefore be welcomed by both the manufacturer and chemist.

The author presents the scientific principles and the practical processes underlying each step in the making of vinegar. Here follows a list of the chapter headings: Chapter I, Historical Introduction; Chapter II, Theories of Acetic Fermentation; Chapter III, The Acetic Bacteria; Chapter IV, Chemical Reactions in Acetification; Chapter V, Acetic Acid; Chapter VI, Preparation of the Gyle; Chapter VII, Acetification of the Gyle; Chapter VIII, Treatment of the Crude Vinegar; Chapter IX, Methods of Examination; Chapter X, Characteristics of Different Vinegars.

The text is explained and supplemented by five full-page plates and 48 other excellent illustrations. Those who wish a good working manual on vinegar are advised to look it over. It may be obtained through The National Provisioner or from the publishers, the J. B. Lippincott Company, Philadelphia, Pa.

**KEEP YOUR PROVISIONER ON FILE.**

The National Provisioner is frequently in receipt of letters from subscribers who recall having seen something interesting or important in a previous issue of this publication, but they have mislaid the copy and want the information repeated or another copy furnished. The National Provisioner offers the suggestion that if every interested subscriber would keep a file of this publication, he would be able to look up a reference at once on any matter which might come up, and thus avoid delay. A carefully arranged index of the important items appearing in our columns is published every six months, and with this and a binder, which The National Provisioner will furnish, the back numbers of the papers may be neatly kept and quickly referred to for information.

The binder is new, and is the handiest and most practical yet put on the market. It is finished in cloth board, with gold lettering, and sells for \$1. It may be had upon application to The National Provisioner, 116 Nassau street, New York.



## FOR PURCHASING DEPARTMENTS

### THE VALUE OF MOTOR TRUCKS.

"Five Kissel trucks, purchased at different periods covering a range of six years, eloquently testify to the growth of a certain building contractor's operations," says Paul V. Clodio, Metropolitan distributor of the Kissel-Kar. "The concern in question frankly attributes a large measure of its success to its early recognition of the utility and economy of power haulage. While many business rivals were pinning their faith to the horse, this firm sensed the advantages of trucks and acted promptly. The saving of time by the new method was quickly apparent. The argument of better service sunk in."

"Business grew and grew, and where at first one truck was enough to accomplish all the work theretofore done by horses, it was not a year before another truck was needed. Since then a truck has been added to the equipment each year until today it requires five of them to take care of the constantly increasing business. Here is a lesson for the man who still persists in comparing the truck with the horse. It is like comparing an old fashioned printing press with the giant multiples of today. One is able to take care of a certain restricted amount of work, the other limited only by the hours and speed utilized."

### WILSON & CO. AND ITS PLANS.

In connection with the recent change of name of the Sulzberger & Sons Company to that of Wilson & Company, the newspapers have given the public considerable information concerning the personnel and plans of the organization. Newspapers always like a "good story," and the story of the rise of Thomas E. Wilson from a car checker to be the head of one of the world's great packing enterprises is one that appeals to everybody.

Concerning Mr. Wilson, his views of the existing meat situation, and the plans of Wilson & Company something like the following appeared in newspapers all over the country:

After over half a century of existence, Sulzberger & Sons Company ceased to bear that name July 27. Since then gangs of men have been changing the signs on all the plants and branches.

The new name of the organization is "Wilson & Co." Its main packing plant is in Chicago. It has seven plants in this country and also has plants in South America. It operates its own refrigerator car lines to haul its products to its various distributing branches.

Thomas E. Wilson, who was educated in the Chicago public schools and began work in the Chicago, Burlington & Quincy freight offices about twenty-five years ago, is president of Wilson & Co. Mr. Wilson's work for the railroad company necessitated his keeping track of refrigerator cars and his ability attracted the attention of the meat packers. It was not long until he was filling a minor clerical position in one of the big packing companies, and his rise in the business and in the world was steady.

Today "Tom" Wilson, as his friends call him, is at the head of his own company. He

is around forty-five years old, is at his desk regularly every morning, handles his work smoothly and without ever seeming busy, and is said to be one of the most accessible and most approachable men in the big industry of which Wilson & Co. now become an important factor.

"The big problem that confronts the meat industry today, Mr. Wilson said, "is the diminishing supply of live stock. It seems hard to make the average person realize that we as a nation are not raising enough cattle to keep pace with the increase in population. A recent report of the Department of Agriculture emphasizes this fact rather strongly.

"Our company is already co-operating with stock raisers in the effort to increase the supply of live stock and to better its quality. We are working especially along the lines of encouraging the raising of live stock in every farming section.

"There is no reason why every farmer, large or small, should not make stock raising a very profitable part of his enterprise. The stock raiser will benefit by this. Our benefit will come from an increased supply of better live-stock, and the consuming public will benefit also, because this should bring about a situation which will mean lower prices."

"We are co-operating with the federal government also, to teach the stock raiser how to raise healthy cattle. We are just as much interested as the stockman in stamping out disease among live stock. Diseased and unhealthy cattle, hogs and sheep cause a loss of hundreds of millions of dollars every year. None of this unfit live-stock is purchased by a company like ours, for in addition to our own inspectors we have the benefit of the government inspection.

"The consumer ought to be taught that the government stamp of inspection on fresh meats and all meat food products is a most important and valuable thing to see. It will help the government, and of course will help us in this effort to improve and increase the supply of livestock, if the public insists upon seeing the official inspection stamp always."

Speaking of the plans of the company itself, Mr. Wilson remarked:

"Since I became president last March we have been putting into effect a great many plans for improving and enlarging our various plants. One thing I have always insisted upon in this business is that the livestock purchased must be sound and healthy.

"Then I believe that foods should be handled in the cleanest manner possible. Our plants are kept clean and sanitary. It is an actual money-saving to an organization such this to be equipped with the latest modern methods of sanitation. We have bettered our methods of distribution, so that our branches are able to supply the dealer more promptly.

"All businesses which supply the home need respond to the advancing standards of home life. People today eat better foods. They have a wider range of choice than our parents had. And it is up to us to satisfy their discriminating tastes and meet the standards that they create for themselves. Why, out here in our smoked meat department the process of selection is carried out so rigidly that, for ex-

ample, only a small percentage of the hams of the right size and quality to receive our 'Majestic' label.

"One fine thing about this job of mine is the organization we have. I'm a great believer in the theory that the man who is going to succeed will make his own opportunity. I like to see the young fellows cashing in on their progressiveness. This world hasn't much use for the young man who is contented to sit still or stand still. There is no such thing as a standing still. You really go backward when you do that, for the procession is going ahead of you all the time.

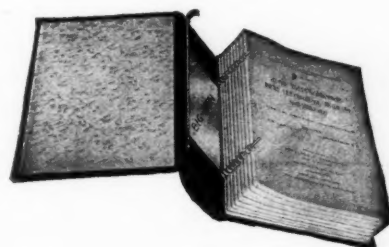
"We study our men here, and try to give each one the chance he wants. And I've noticed that the ones who make their marks are the ones who don't keep arguing about how a thing was done yesterday, but can show you how much better it may be done tomorrow."

Wilson & Company in succeeding the Sulzberger firm assumes a business whose volume has grown to over \$100,000,000 annually during the past fifteen years. The new company is widening its operations. Its products embrace fresh, smoked and canned meats, preserves, jams and jellies, condiments, butter, butterine, eggs, cheese and a long list of by-products.

### SAVE YOUR NATIONAL PROVISIONER.

How often have you wished to refer to an article or an item of trade information or some valuable trade statistics in some back copy of The National Provisioner, only to find that copy lost or mutilated? You will be glad to know that we have succeeded at last in securing a really practical binder. You can now have your Provisioner in the form of a handsomely bound book ready to refer to at any time.

The new binder is the simplest made. The binding is as simple as sticking papers on an



ordinary file. Each binder holds 26 copies of The National Provisioner, or an entire volume. The binder has the appearance of a regular bound book. The cover is of cloth board and the name is stamped in gold. The binder makes a substantially-bound volume that will be a valuable part of your office equipment or a handy addition to your library.

By special arrangement with the manufacturers we can furnish you with this binder for only one dollar. Merely send us your name and address. Simply say: "Send me your binder. I enclose \$1." The binder will be sent promptly, all charges prepaid.

# Chicago Section

Wrinkles do not denote age. Take a prune, for instance.

Old Cincinnati's going to show you an A. D. 2000 clip on October 9, 10 and 11. Be there!

Seems like everybody and his aunt is runnin' fer office. Gee! how sociable they are—now!

There are some of 'em actually accidents, and only need some convenient place to happen.

The European war is about as hard to dope out as the wheat market. Still, there are dopeists and dopeists, but they call themselves experts.

Swift & Company's sales of beef in Chicago for the week ending Saturday, September 9, 1916, averaged as follows: Domestic beef, 11.78 cents per pound.

A has the packer! Roast I outa him or anything and everything, from malicious manipulation of air pockets to patent flour bread, and get the votes of the—perhaps!

W. L. Gregson & Company write to The National Provisioner concerning the provision situation as follows: "A tendency to realize on both the cash and future product has been noticeable during the week, accompanied by freer offerings of the January deliveries on the strong days. Trade has been large, with big changes in the ownership. Pork and ribs have been quiet, with most of the interest in lard. Hog prices are much too high, and meats seem high enough. We think lard stocks will be merchandized around these levels, but any broadening in the trade from this on should come in the 1916 deliveries. Hogs are beginning to show a little better quality."

Concerning the provision situation W. G. Press & Company say: "While the trade in cured hog products has been enormous, particularly during the last 60 days, it has not

warranted the high prices hogs have been selling for, and the record prices paid last week, \$11.55, was due to the anticipated railroad strike which did not take place. The price of fresh pork was very high during these record high prices for hogs, bringing about a light trade to the retailer, thereby creating a dullness which has not yet become normal, even at a decline of 2c. a pound in pork loins. Pork loins sold at 22c. a pound during the high price period, and are selling today at 20c., but this price is not likely to induce any big trade. The retail price of pork chops is 28c., 2c. a pound higher than

the record high prices. The nearby futures seem to be held in strong hands, and as the trade in cured hog products has been very large, both domestic and foreign, during this big trade period and will continue to be large up to November, there is little chance to expect lower prices for the September and October futures. But we feel, considering the new crop of hogs which will start to market in October and November, that December and January futures will look high, and a substantial decline could easily take place."

## WAR AND AUSTRALIAN MEAT.

Writing from Melbourne on the effect of the war on Australian meat trade conditions, U. S. Consul William C. Magelsen says: Many handicaps and restrictions have been imposed on the cattle industry since the war began. Early in the struggle the difficulties caused by the drought and heavy losses of stock were intensified by unexpected restrictions on exports abroad and even between State and State.

Powers of restricting trade between the States were generally believed to have been abrogated when the Federal compact was signed, but the dual calamity of drought and war caused a strain to be put on the State legislatures, whose instinct of self-preservation led them to curtail the free exchange of food products between the States to any degree likely to shorten home supplies. Under these circumstances Victoria was a chief sufferer because its denser population and devotion to manufacturing enterprises had left it somewhat dependent on other and larger States for supplies of meat food.

The result was a sharp advance in the cost of meat for home consumption in Melbourne. When increased supplies at reduced rates were sought from other States export from the latter was stopped. Exports of meat to the United States, which had risen from \$99,417 in 1913 to \$495,579 in the January to June half of 1914, were brought practically to a standstill.

At present the depletion of the pastures by the 1914 drought is being overcome rapidly, as the season has been very favorable

## Eleventh Annual Convention

of the

## American Meat Packers' Association

will be held at

**CINCINNATI**  
**Oct. 9, 10 and 11**

**Get Ready to Go**

**You know that "Cincinnati Bunch!"**

spring chickens, a situation that cannot last, and we expect fresh pork to sell very much lower within the next three or four weeks. The price packers bought hogs for yesterday, around 10c., is an indication of what will happen next month when hog receipts will be double what they were last week during

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Union Stock Yards CHICAGO, ILL.  
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Must he produce the best results he can with an anhydrous ammonia which is purchased upon a basis **OTHER** than that of quality?

Your engineer knows that a guaranteed pure and dry anhydrous ammonia made from a strictly mineral base does produce best results.

Only by using such an ammonia can you reduce operating expenses.

## Anhydrous **SUPREME** Ammonia

**"EVERY OUNCE ENERGIZES"**

Fill your requirements.

Used by most of the leading packers throughout the United States.

**SUPREME** means pure, dry, highest quality anhydrous ammonia.

Less power and less coal = less expense.

Better refrigeration and more satisfaction = greater efficiency.

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For Future Delivery

GRAIN Correspondence Solicited STOCKS

### LEON DASHEW

#### Counselor At Law

320 Broadway, New York

Phones: Worth 2014-5.

#### References:

Armour and Company	Joseph Stern & Sons,
The Cudahy Packing	Inc.
Co.	
Rosebrock Butter &	Manhattan Veal &
Egg Co., Inc.	Mutton Co.
New York Butchers	United Dressed Beef
Dressed Meat Co.	Co.

in the southern and western areas to growth of grass. The demands of growers for breeding stock have temporarily increased the shortage of meat supplies for home consumption, but it is hoped that before the end of the present year market conditions will have returned to normal.

Do you want a good position? Look for it on page 48.

## BONE CRUSHERS



## WILLIAMS

Williams Bone Crushers and Grinders are not alone suitable for grinding bone for fertilizer purposes, they are also suitable for crushing bone for glue and case hardening purposes. Every packer having to dispose of his bone whether Green, Raw, or Junk and Steamed bone, will do well to get in touch with Williams.

Williams machines are also suitable for Tankage, Cracklings, Beef Scrap, Oyster and Clam Shells, and any other material found around the packing plant requiring crushing or grinding.

Send for catalog No. 9.

### THE WILLIAMS PAT. CRUSHER & PULVERIZER CO.

General Sales Dept., Old Colony Bldg.  
Works: ST. LOUIS

CHICAGO

268 Market St.,  
SAN FRANCISCO

**WATCH OUR "WANT and FOR SALE" PAGE FOR BUSINESS CHANCES.**



## CHICAGO LIVE STOCK

## RECEIPTS.

	Cattle, Calves.	Hogs.	Sheep.
Monday, Sept. 4.....	6,222	616	13,375
Tuesday, Sept. 5.....	1,883	327	2,826
Wednesday, Sept. 6.....	12,710	981	11,536
Thursday, Sept. 7.....	7,001	1,024	12,842
Friday, Sept. 8.....	4,956	424	16,328
Saturday, Sept. 9.....	751	33	7,821
Total last week.....	33,643	3,465	64,728
Previous week.....	67,771	7,635	167,543
Cor. week, 1915.....	31,465	6,437	95,000
Cor. week, 1914.....	40,474	4,537	66,639

## SHIPMENTS.

	Cattle.	Hogs.	Sheep.
Monday, Sept. 4.....	83	3,304	725
Tuesday, Sept. 5.....	1,025	1	1,529
Wednesday, Sept. 6.....	3,041	289	2,474
Thursday, Sept. 7.....	2,578	78	2,316
Friday, Sept. 8.....	2,254	142	2,700
Saturday, Sept. 9.....	549	4	1,093
Total last week.....	10,847	597	13,416
Previous week.....	14,950	472	17,118
Cor. week, 1915.....	9,349	353	28,007
Cor. week, 1914.....	15,543	968	15,919

## CHICAGO TOTAL RECEIPTS LIVESTOCK.

	Cattle.	Hogs.	Sheep.
Year to Sept. 9, 1916.....	1,435,199	5,894,783	2,679,979
Same period, 1915.....	1,345,740	4,981,238	3,236,697
Combined receipts of hogs at eleven points:			
Week ending Sept. 9, 1916.....		226,000	
Previous week.....		468,000	
Corresponding week, 1915.....		327,000	
Corresponding week, 1914.....		275,000	
Total year to date.....		20,168,000	
Same period, 1915.....		17,913,000	
Same period, 1914.....		15,794,000	

Receipts at seven points (Chicago, Kansas City, Omaha, St. Louis, St. Joseph, Sioux City, St. Paul) as follows:

	Cattle.	Hogs.	Sheep.
Week to Sept. 9, 1916.....	137,200	157,300	210,500
Previous week.....	248,800	394,300	320,800
Same period, 1915.....	200,400	242,400	323,000
Same period, 1914.....	161,700	185,500	333,300
Combined receipts at seven markets for 1916 to Sept. 9, and same period a year ago:			
1916.....	5,287,000	4,697,000	
1915.....	16,722,000	14,246,000	
1914.....	6,686,000	6,672,000	

## CHICAGO PACKERS' HOG SLAUGHTER.

	1916.	1915.
Week ending Sept. 9, 1916:		
Armour & Co.....	18,800	
Swift & Co.....	8,500	
Wilson & Co.....	6,700	
Morris & Co.....	4,900	
Hammond Co.....	4,700	
Western P. Co.....	3,300	
Anglo-American.....	3,900	
Independent P. Co.....	900	
Boyd-Lindham.....	3,200	
Roberts & Oake.....	1,500	
Brennan P. Co.....	2,900	
Miller & Hart.....	2,300	
Others.....	8,200	
Totals.....	69,400	
Total last week.....	135,300	
Total corresponding week, 1915.....	71,900	
Total corresponding week, 1914.....	56,200	
Total for year 1916 to date.....	5,672,200	
Corresponding period, 1915.....	4,577,600	

## WEEKLY AVERAGE PRICE OF LIVESTOCK.

	Cattle.	Hogs.	Sheep, Lambs.
This week.....	\$9.65	\$10.50	\$7.75
Previous week.....	9.85	10.50	7.19
Cor. week, 1915.....	8.70	7.05	5.65
Cor. week, 1914.....	9.45	9.00	5.10
Cor. week, 1913.....	8.20	8.25	4.30
Cor. week, 1912.....	8.20	8.52	4.30
Cor. week, 1911.....	7.00	7.08	3.75

## CATTLE.

Good to choice steers.....	\$9.00@11.25
Yearlings, good to choice.....	8.50@10.35
Fair to good steers.....	7.50@ 8.50
Range steers.....	7.50@ 8.50
Stockers and feeders.....	6.50@ 7.75
Good to choice heifers.....	7.00@ 9.00
Fair to good cows.....	5.50@ 7.50
Butcher bulls.....	6.00@ 7.35

Cutters.....	4.50@ 5.25
Canners.....	3.00@ 4.15
Bologna hogs.....	5.60@ 6.65
Good to prime calves.....	8.00@13.00
Heavy calves.....	9.00@10.25

## HOGS.

Prime light butchers.....	\$10.00@11.25
Fair to fancy light.....	10.75@11.20
Prime med. weight butchers, 220-250 lbs.....	10.70@11.10
Prime heavy weight butchers, 230-320 lbs.....	11.60@11.90
Heavy mixed packing.....	10.20@10.60
Rough heavy mixed packing.....	9.85@10.20
Pigs, fair to good.....	8.25@ 9.85
Stags (subject to 50 lbs. dockage).....	9.25@10.75

## SHEEP.

Yearlings.....	\$8.00@ 9.25
Fair to choice ewes.....	6.00@ 7.75
Breeding ewes.....	7.25@ 8.30
Wethers, fair to choice.....	7.00@ 8.25
Western lambs.....	10.00@11.50
Native lambs.....	9.00@11.25

## CHICAGO PROVISION MARKET

## Range of Prices.

SATURDAY, SEPTEMBER 9, 1916.

	Open.	High.	Low.	Close.
PORK—(Per bbl.)—				
September.....	\$27.55	\$27.90	\$27.50	\$27.90
October.....	26.65	26.80	26.52	26.75
December.....	24.60	24.85	24.50	24.70
January.....	24.00	24.35	23.90	24.10
LARD—(Per 100 lbs.)—				
September.....	14.20	14.30	14.20	14.30
October.....	14.20	14.35	14.17	14.27
December.....	13.92	14.05	13.87	13.90
January.....	13.82	13.90	13.77	13.77
RIBS—(Boxed, 25c. more than loose)—				
September.....	14.45	14.47	14.42	14.44
October.....	14.10	14.12	14.00	14.10
January.....	12.82	12.90	12.80	12.80

MONDAY, SEPTEMBER 11, 1916.

PORK—(Per bbl.)—				
September.....	27.90	27.90	27.82	27.82
October.....	26.10	26.50	26.05	26.50
December.....	23.90	23.90	23.50	23.90
January.....	23.65	23.75	23.60	23.75
LARD—(Per 100 lbs.)—				
September.....	14.12	14.15	14.02	14.15
October.....	14.00	14.20	13.90	14.12
December.....	13.50	13.82	13.60	13.80
January.....	13.67	13.72	13.55	13.67
RIBS—(Boxed, 25c. more than loose)—				
September.....	14.25	14.32	14.25	14.32
October.....	13.92	14.00	13.90	14.00
January.....	12.65	12.75	12.60	12.67

TUESDAY, SEPTEMBER 12, 1916.

PORK—(Per bbl.)—				
September.....	27.80	27.82	27.80	27.80
October.....	26.70	26.75	26.45	26.45
December.....	23.75	23.77	23.50	23.65
January.....	23.50	23.55	23.50	23.50
LARD—(Per 100 lbs.)—				
September.....	14.20	14.22	14.10	14.10
October.....	14.15	14.17	14.05	14.05
December.....	13.85	13.85	13.62	13.62
January.....	13.70	13.72	13.45	13.47
RIBS—(Boxed, 25c. more than loose)—				
September.....	14.40	14.40	14.30	14.30
October.....	13.95	14.02	13.95	13.95
January.....	12.62	12.67	12.50	12.50

WEDNESDAY, SEPTEMBER 13, 1916.

No market.

THURSDAY, SEPTEMBER 14, 1916.

PORK—(Per bbl.)—				
September.....	27.95	27.95	27.95	27.95
October.....	26.55	26.65	26.55	26.60
December.....	23.62	23.75	23.60	23.60
January.....	23.50	23.72	23.52	23.72
LARD—(Per 100 lbs.)—				
September.....	14.50	14.50	14.40	14.35
October.....	14.35	14.50	14.27	14.30
December.....	13.90	13.95	13.82	13.82
January.....	13.75	13.77	13.62	13.62
RIBS—(Boxed, 25c. more than loose)—				
September.....	14.25	14.35	14.25	14.32
October.....	14.35	14.50	14.20	14.22
January.....	12.67	12.67	12.65	12.70

FRIDAY, SEPTEMBER 15, 1916.

PORK—(Per bbl.)—				
September.....	27.90	27.90	27.90	27.90
October.....	26.60	26.60	26.50	26.75
December.....	23.65	23.80	23.65	23.87
January.....	23.75	23.87	23.72	23.87
LARD—(Per 100 lbs.)—				
September.....	14.50	14.50	14.45	14.47
October.....	14.40	14.47	14.10	14.42
December.....	13.90	13.95	13.87	13.95
January.....	13.72	13.72	13.67	13.72
RIBS—(Boxed, 25c. more than loose)—				
September.....	14.65	14.75	14.65	14.75
October.....	14.30	14.40	14.30	14.37
January.....	12.70	12.75	12.70	12.75

†Bld. †Asked.

## CHICAGO RETAIL FRESH MEATS.

(Corrected weekly by Pollack Bros., 41st and Halsted Streets.)

## Beef.

Native Rib Roast.....	20	@ 25
Native Sirloin Steaks.....	25	@ 28
Native Porterhouse Steaks.....	30	@ 35
Native Pot Roasts.....	16	@ 18
Rib Roasts from light cattle.....	14	@ 18
Beef Stew.....	12	@ 14
Boneless Corned Briskets, Native.....	16	@ 18
Corned Rumps, Native.....	16	@ 18
Corned Ribs.....	11	@ 12 1/2
Corned Flanks.....	18	@ 20 1/2
Round Steaks.....	18	@ 25
Round Roasts.....	16	@ 18
Shoulder Steaks.....	18	@ 20
Shoulder Roasts.....	14	@ 16
Shoulder Neck End, Trimmed.....	16	@ 12 1/2
Roller Roast.....	16	@ 18

## Lamb.

Hind Quarters, fancy.....	22	@ 25
Fore Quarters, fancy.....	18	@ 20
Legs, fancy.....	22	@ 25
Stew.....	14	@ 15
Chops, shoulder, per lb.....	20	@ 20
Chops, rib and loin, per lb.....	15	@ 15
Chops, French, each.....	15	@ 15

## Mutton.

Legs.....	20	@ 22
Stew.....	12 1/2	@ 14
Shoulders.....	16	@ 18
Hind Quarters.....	20	@ 22
Fore Quarters.....	15	@ 17
Rib and Loin Chops.....	25	@ 28
Shoulder Chops.....	18	@ 20

## Pork.

Pork Loin.....	22	@ 25
Pork Chops.....	25	@ 25
Pork Shoulders.....	16	@ 16
Pork Tenders.....	16	@ 16
Pork Butts.....	20	@ 20
Spare Ribs.....	12 1/2	@ 12 1/2
Hocks.....	11	@ 12 1/2
Pigs' Heads.....	6	@ 8
Leaf Lard.....	16	@ 16

## Veal.

Hind Quarters.....	20	@ 22
Fore Quarters.....	14	@ 16
Legs.....	20	@ 22
Breasts.....	14	@ 16
Shoulders.....	18	@ 20
Cutlets.....	18	@ 20
Rib and Loin Chops.....	28	@ 30

## Butchers' Offal.

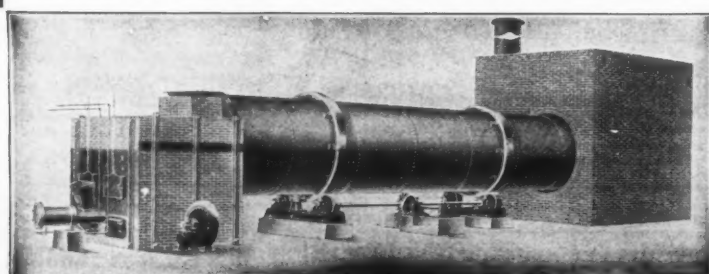
Suet.....	4	@ 7
Tallow.....	4	@ 4
Bones, per cwt.....	6	@ 7 1/2
Calfskins, 8 to 15 lbs.....	29	@ 29
Calfskins, under 18 lbs. (dressed).....	45	@ 45
Kips.....	22 1/2	@ 22 1/2

## STERNE &amp; SON CO.

## Just Brokers

Tallow, Grease, Stearine  
Animal and Vegetable Fats and Oils  
Postal Tel Bldg. Chicago

## DRYERS AND CONTINUOUS PRESSES

Economical Efficient  
Great Capacity

SAVING IN LABOR ALONE IN ONE YEAR WILL  
OFFSET COST TO INSTALL

For Tankage, Blood, Bone, Fertilizer, all Animal and  
Vegetable Matter. Installed in the largest packing-  
houses, fertilizer and fish reduction plants in the world.

Send for Catalogue T. B.

**American Process Co.**  
68 William St., - - New York

## CHICAGO MARKET PRICES

## WHOLESALE FRESH MEATS.

Carcass Beef.	
Prime native steers	15 @ 15 1/2
Good native steers	13 1/2 @ 14
Native steers, medium	12 1/2 @ 13 1/2
Heifers, good	12 @ 13
Cows	9 1/2 @ 12
Hind Quarters, choice	@ 17
Fore Quarters, choice	@ 12
Beef Cuts.	
Beef Tenderloins, No. 1	@ 35
Beef Tenderloins, No. 2	@ 32
Steer Loins, No. 1	@ 25
Steer Short Loins, No. 1	@ 30
Steer Loins, No. 2	@ 19
Steer Short Loins, No. 2	@ 26
Cow Loins	12 1/2 @ 15 1/2
Cow Short Loins	17 1/2 @ 18
Steer Loin Ends (hips)	@ 21
Cow Loin Ends (hips)	@ 15
Strip Loin, No. 3	16 1/2 @ 19 1/2
Steer Ribs, No. 1	@ 19
Steer Ribs, No. 2	@ 17 1/2
Cow Ribs, No. 1	@ 16
Cow Ribs, No. 2	@ 15
Cow Ribs, No. 3	@ 10
Rolls	13 1/2 @ 15 1/2
Steer Rounds, No. 1	@ 15 1/2
Steer Rounds, No. 2	@ 14 1/2
Cow Rounds	@ 12
Flank Steak	@ 15
Rump Butts	@ 12
Steer Chucks, No. 1	@ 12
Steer Chucks, No. 2	@ 10 1/2
Cow Chucks	@ 8 1/2
Boneless Chucks	@ 10 1/2
Steer Plates	@ 10
Medium Plates	@ 9 1/2
Briskets, No. 1	@ 13
Briskets, No. 2	@ 11
Shoulder Cloves	@ 13 1/2
Steer Navel Ends	@ 9
Cow Navel Ends	@ 8 1/2
Fore Shanks	@ 7 1/2
Hind Shanks	@ 6 1/2
Hanging Tenderloins	@ 12
Trimnings	@ 11

## Beef Offal.

Brains, per lb.	7 @ 7 1/2
Hearts	8 1/2 @ 9
Tongues	@ 20
Sweetbreads	@ 20
Ox Tail, per lb.	7 1/2 @ 8
Fresh Tripe, plain	@ 4 1/2
Fresh Tripe, H. C.	@ 7 1/2
Livers	@ 7 1/2
Kidneys, each	@ 5 1/2

## Veal.

Heavy Carcass, Veal	12 1/2 @ 15
Light Carcass	17 1/2 @ 18
Good Carcass	18 1/2 @ 19 1/2
Good Saddles	@ 21
Medium Racks	@ 13
Good Racks	@ 15

## Veal Offal.

Brains, each	@ 7 1/2
Sweetbreads	@ 45
Calif Livers	18 @ 21
Heads, each	@ 25

## Lambs

Good Caul Lambs	@ 16
Round Dressed Lambs	@ 19
Saddles, Caul	@ 17
R. D. Lamb Fores	@ 17
Caul Lamb Fores	@ 15
R. D. Lamb Saddles	@ 21
Lamb Fries, per lb.	@ 20
Lamb Tongues, each	@ 4
Lamb Kidneys, per lb.	@ 12

## Mutton.

Medium Sheep	@ 13
Good Sheep	@ 14
Medium Saddles	@ 14 1/2
Good Saddles	@ 16
Good Fores	@ 12
Medium Racks	@ 10
Mutton Legs	@ 15 1/2
Mutton Loins	@ 13
Mutton Steaks	@ 9
Sheep Tongues, each	@ 2 1/2
Sheep Heads, each	@ 10

## Fresh Pork, Etc.

Dressed Hogs	@ 16 1/2
Pork Loins	@ 21 1/2
Leaf Lard	@ 14 1/2
Tenderloins	@ 29
Spare Ribs	@ 11 1/2
Butts	@ 18
Hocks	@ 10
Trimnings	@ 12 1/2
Extra Lean Trimnings	@ 15
Tails	@ 7 1/2
Snouts	@ 6
Pigs' Feet	@ 4
Pigs' Heads	@ 6 1/2
Blade Bones	@ 9
Blade Meat	@ 9
Cheek Meat	@ 9
Hog Livers, per lb.	2 1/2 @ 3
Neck Bones	@ 3 1/2
Skinned Shoulders	@ 15
Pork Hearts	@ 9
Pork Kidneys, per lb.	@ 6
Pork Tongues	@ 14
Slip Bones	@ 5
Tail Bone	@ 6
Brains	@ 5 1/2
Backfat	@ 13
Hams	@ 17 1/2
Calas	@ 13 1/2

## Bellies

## Shoulders

## SAUSAGE.

Columbia Cloth Bologna	@ 11 1/2
Bologna, large, long, round, in casings	@ 11 1/2
Choice Bologna	@ 13
Frankfurters	@ 15
Liver, with beef and pork	@ 15 1/2
Tongue	@ 15
Mixed Sausage	@ 18
New England Sausage	@ 18
Prepared Luncheon Sausage	@ 15 1/2
Special Compressed Sausage	@ 15 1/2
Berliner Sausage	@ 23 1/2
Oxford Lean Butts	@ 14
Polish Sausage	@ 14
Garlic Sausage	@ 16
Country Smoked Sausage	@ 15
Country Sausage, fresh	@ 16
Pork Sausage, bulk or link	@ 14 1/2
Pork Sausage, short link	@ 20 1/2
Boneless lean butts in casings	@ 18
Luncheon Roll	@ 15
Delicatessen Loaf	@ 18
Jellied Roll	@ 18

## Summer Sausage.

Best Summer H. C. (new)	@ 28 1/2
German Salami	@ 20 1/2
Italian Salami (new goods)	@ 28 1/2
Hellmeister	@ 20 1/2
Mettwurst	@ 20 1/2
Farmer	@ 23 1/2

## Sausage in Brine.

Bologna, kits	@ 1.60
Bologna, 1/2 @ 1/2	2.00 @ 7.70
Pork link, kits	@ 2.05
Pork links, 1/2 @ 1/2	2.60 @ 10.45
Polish sausage, kits	@ 1.75
Polish sausage, 1/2 @ 1/2	2.20 @ 8.80
Frankfurters, kits	@ 1.75
Frankfurters, 1/2 @ 1/2	2.30 @ 8.80
Blood sausage, kits	@ 1.60
Blood sausage, 1/2 @ 1/2	2.00 @ 7.70
Liver sausage, kits	@ 1.60
Liver sausage, 1/2 @ 1/2	2.00 @ 7.70
Head Cheese, kits	@ 1.60
Head Cheese, 1/2 @ 1/2	2.00 @ 7.70

## VINEGAR PICKLED GOODS.

Pickled Pigs' Feet, in 200-lb. barrels	\$10.15
Pickled Plain Tripe, in 200-lb. barrels	10.25
Pickled H. C. Tripe, in 200-lb. barrels	12.40
Pickled Ox Lips, in 200-lb. barrels	21.00
Pickled Pork Snouts, in 200-lb. barrels	22.00
Sheep Tongues, Short Cut, barrels	55.00

## CORNED, BOILED AND ROAST BEEF.

No. 1, 2 doz. to case	Per doz. \$2.15
No. 2, 1 or 2 doz. to case	4.15
No. 6, 1 doz. to case	14.50
No. 14, 1/2 doz. to case	41.50

## EXTRACT OF BEEF.

2-oz. jars, 1 doz. in box	Per doz. \$2.85
4-oz. jars, 1 doz. in box	5.70
8-oz. jars, 1/2 doz. in box	10.75
16-oz. jars, 1/2 doz. in box	20.00

## BARBELED BEEF AND PORK.

Extra Plate Beef, 200-lb. barrels	@ 21.50
Plate Beef	@ 21.00
Prime Mess Beef	@ 21.00
Mess Beef	@ 20.50
Beef Hams (220 lbs. to bbl.)	— @ —
Rump Butts	@ 23.50
Mess Pork	@ 29.00
Clear Fat Backs	@ 28.50
Family Back Pork	@ 29.00
Bean Pork	@ 27.00

## LARD.

Pure lard, kettle rendered, per lb., tes.	@ 10 1/2
Pure lard	@ 15 1/2
Lard, substitute, tes.	@ 12 1/2
Lard, compound	@ 12 1/2
Cooking oil, per gal., in barrels	@ 82
Cooks' and bakers' shortening tubs	@ 17 1/2
Barrels, 1/2c. over tierces, half barrels, 1/4c. over tierces; tubs and pails, 10 to 80 lbs., 1/4c. to 1c. over tierces.	

## BUTTERINE.

1 to 6, natural color, solids, f. o. b. Chicago	15 1/2 @ 22
Cartons, rolls or prints, 1 lb.	16 1/2 @ 23
Cartons, rolls or prints, 2 @ 5 lbs.	16 @ 22 1/2
Shortenings, 30 @ 60 lb. tubs	12 1/2 @ 16 1/2

## DRY SALT MEATS.

(Boxed. Loose are 1/4c. less.)

Clear Bellies, 14 @ 16 avg.	@ 17 1/2
Clear Bellies, 18 @ 20 avg.	@ 17 1/2
Rib Bellies, 20 @ 25 avg.	@ 17 1/2
Fat Backs, 10 @ 12 avg.	@ 14
Fat Backs, 12 @ 14 avg.	@ 14 1/2
Fat Backs, 14 @ 16 avg.	@ 14 1/2
Extra Short Cleats	@ 15 1/2
Extra Short Ribs	@ 15 1/2
D. S. Short Cleats, 20 @ 25 avg.	@ 16 1/2
Butts	@ 13 1/2
Bacon meats, 1 1/2c. more.	

## WHOLESALE SMOKED MEATS.

Hams, 12 lbs. avg.	@ 20
Hams, 16 lbs. avg.	@ 19 1/2
Skinned Hams	@ 21 1/2
Calas, 4 @ 6 lbs. avg.	@ 14
Calas, 6 @ 12 lbs. avg.	@ 14
New York Shoulders, 6 @ 12 lbs. avg.	@ 16
Breakfast Bacon, fancy	@ 26
Wide, 10 @ 12 avg., and strip, 5 @ 6 avg.	@ 19 1/2
Wide, 6 @ 8 avg., and strip, 3 @ 4 avg.	@ 20 1/2
Rib Bacon, wide, 8 @ 12 avg., and strip, 4 @ 6 avg.	@ 16 1/2
Dried Beef Sets	@ 29

Dried Beef Insides	@ 32 1/2
Dried Beef Knuckles	@ 28 1/2
Dried Beef Outsides	@ 28
Regular Boiled Hams	@ 28
Smoked Boiled Hams	@ 30
Boiled Calas	@ 21
Cooked Loin Rolls	@ 35
Cooked Rolled Shoulder	@ 21

## SAUSAGE CASINGS.

## F. O. B. CHICAGO.

Beef rounds, per set	@ 13
Beef exports, rounds	@ 20
Beef middles, per set	@ 45
Beef bungs, per piece	@ 15
Beef weasands	@ 7 1/2
Beef bladders, medium	@ 60
Beef bladders, small, per doz.	@ 76
Hog casings, free of salt	@ 50
Hog middles, per set	@ 10
Hog bungs, export	@ 10
Hog bungs, large	@ 7 1/2
Hog bungs, prime	@ 6
Hog bungs, narrow	@ 3
Hog stomachs, per piece	@ 4
Imported wide sheep casings	.
Imported medium wide sheep casings	.
Imported medium sheep casings	.

\*Owing to unsettled war conditions reliable sheep casing quotations cannot be given.

## FERTILIZERS.

Dried blood, per unit	@ 3.20
Hoof meal, per unit	2.70 @ 2.80
Concentrated tankage, ground	2.75 @ 2.80
Ground tankage, 12%	@ 3.20
Ground tankage, 11%	3.10 @ 3.15
Ground tankage, 9 and 20%	2.95 @ 3.00
Crushed tankage, 9 and 20%	2.60 @ 2.65
Ground tankage, 6 1/2 and 30%	24.00 @ 25.00
Ground raw bone, per ton	27.00 @ 28.00
Ground steam bone, per ton	23.00 @ 23.50

## HORNS, HOOF AND BONES.

Horns, No. 1, 65 @ 70 lbs. aver.	140.00 @ 150.00
Hoofs, black, per ton	50.00 @ 31.00
Hoofs, striped, per ton	50.00 @ 31.00
Hoofs, white, per ton	45.00 @ 50.00
Flat shin bones, 40 lbs. ave., per ton	50.00 @ 60.00
Round shin bones, 35-40 lbs. av., per ton	50.00 @ 60.00
Round shin bones, 50-52 lbs. av., per ton	60.00 @ 70.00
Long thin bones, 90-95 lbs. av., per ton	80.00 @ 90.00
Skulls, jaws and knuckles, per ton	33.00 @ 35.00

## LARD.

Prime steam, cash	@ 14.25
Prime steam, home	@ 13.97
Leaf	@ 13 1/2
Compound	@ 12
Neutral lard	@ 15

## STEARINES.

Prime oleo	12 1/4 @ 12 1/2
Tallow	@ 11
Grease, yellow	8 1/4 @ 8 1/2
Grease, A white	9 1/4 @ 9 1/2

## OILS.

Oleo oil, extra	13 3/4 @ 14
Oleo oil, No. 2	13 1/4 @ 13 1/2
Oleo stock	12 1/2 @ 13
Linsed, bbls.	@ 70
Corn oil, house	8 1/2 @ 8 3/4

## TALLOW.

Edible	10 @ 10 1/2
Prime City	9 1/2 @ 9 3/4
Prime Country	9 1/4 @ 9 1/2
Packers' Prime	9 1/2 @ 9 3/4
Packers' No. 1	8 1/2 @ 8 3/4
Packers' No. 2	8 @ 8 1/4

## GREASES.

White, choice	9 1/2 @ 9 3/4
White, "A"	9 @ 9 1/4
White, "B"	8 1/4 @ 8 1/2
Bone	@ 8 3/4
Crackling	@ 8 1/2
Home	8 @ 8 1/4
Yellow	8 @ 8 1/4
Brown	7 1/4 @ 7 1/2
Glycerine, C. M.	45 @ 47
Glycerine, dynamite	40 @ 42
Glycerine, crude soap	30 @ 33
Glycerine, candle	32 @ 35

## COTTONSEED OILS.

P. S. Y., loose	@ 69
P. S. Y., soap grade	@ 68
Soap stock, bbls., concn., 62 @ 65% f. a.	@ 4
Soap stock, house, reg., 50% f. a.	21 @ 23

## COOPERAGE.

Ash pork barrels, black iron hoops	1.05 @ 1.10
Oak pork barrels, black iron hoops	1.15 @ 1.20
Ash pork barrels, galv. iron hoops	1.25 @ 1.30
Red oak hard tierces	1.50 @ 1.52 1/2
White oak hard tierces	1.75 @ 1.80
White oak ham-curing tierces, g. i. hoops	@ 2.00

## CURING MATERIALS.

Refined saltpetre	@ 25
Refined nitrate of soda, car lots f. o. b. N. Y.	5 @ 6 1/4
Boric acid, crystal to powdered	11 1/2 @ 15
Rorax	6 1/2 @ 7 1/4
Sugar	— @ —
White, clarified	@ 6 1/2
Plantation, granulated	@ 6 1/2
Yellow, clarified	@ 6 1/2

Salt—	
Ashton, in sacks, 224 lbs.	2.50
Ashton, car lots, per sack	2.35
English packing, T. H. & Co., car lots, per sack	1.72
English packing, Chesbire, car lots, per sack	1.65
English packing, pure dried vacuum, per sack	1.57
English packing, Liverpool ground alum, per sack	1.40
Michigan, granulated, car lots, per ton	3.81
Michigan, medium, car lots, per ton	4.31
Casing salt, 250 lbs., 2x @ 3x, car lots, per bbl.	1.37

Prices f. o. b. Chicago.

# Retail Section

## PRACTICAL TALKS WITH SHOP BUTCHERS A System of Accounts for Retail Merchants

(Continued from last week.)

**EDITOR'S NOTE.**—The first installment of this article described the value of a good system of accounting, and outlined the books necessary. The second installment described the general cash book, ledger, invoice book, sales and credit tickets. The installment herewith shows the record forms necessary, and just how to make them up.

### Monthly Summary of Business.

This record, Form A, will be found very useful for monthly and yearly comparisons of expenses and ratios. It is arranged with columns for sales, both cash and credit and total, and for the various expenses of the business. The figures on this statement are taken from the ledger.

Each month the figures for that month should be added to the previous total so that the record will give the totals from the first of the year to date as well as the monthly totals.

### Profit and Loss Statement.

The amounts for making up this statement, Form B, can be had from the ledger and from the trial balance. It is made up at such times as the inventory is taken. A physical inventory should be taken at least once a year. The basis should be cost with conservative deduction for obsolete and shelf-worn goods. The inventory at the beginning of the period is, of course, that brought down from the end of the last period.

When monthly profit and loss statements are desired, and where the percentage of overhead and profit is known, the approximate cost of the goods sold can be arrived at in the following manner: Deduct the percentage of overhead and profit from 100 and multiply by the amount of the net sales; the result will be the cost of the goods sold,

which, when deducted from net sales, will give the approximate gross profit on sales.

If desired, the difference between the values placed on the inventory and the actual cost of same can be shown on the statement. Show the actual cost of inventory and then the deduction under the title "Stock Depreciation," carrying the net forward as illustrated. While this is not necessary it is valuable information and this method is recommended.

### FEDERAL TRADE COMMISSION.

Washington, D. C., July 15, 1916.

To the Retail Merchant:

The Federal Trade Commission has found that the majority of retail merchants do not know accurately the cost of conducting their business, and for this reason they are UNABLE TO PRICE THEIR GOODS INTELLIGENTLY.

There must be decided improvement in this direction before competition can be placed upon a sound basis and before we can expect a decrease in the heavy business death rate among retail merchants.

With the object of aiding retail merchants to improve their accounting methods we have outlined a simple system of accounts which provides for supplying the information necessary to properly direct a retail business. I commend it to your attention and feel satisfied that if you will read it carefully you will find many helpful suggestions.

It has been prepared under my direction by Mr. Robert E. Belt, Chief Accountant, and Mr. R. W. Gardiner, Assistant. Trusting we may have your hearty co-operation, I am,

Very respectfully yours,  
EDWARD N. HURLEY, Chairman.

The total net profit as shown by the statement is that carried to the credit of the proprietor's account in the ledger.

### Balance Sheet.

Ledger accounts should be kept by the double entry principle with all real (asset and liability) accounts, as well as with all nominal (profit and loss) accounts. A Balance Sheet of the same date as the Profit and Loss Statement should be made up from the balances of all real accounts. The ordinary asset and liability accounts and a logical classification thereof are shown by Form C.

(To be continued.)

### LOCAL AND PERSONAL.

Hinman Bros. have purchased V. A. Lind's meat market in Pilot Mound, Iowa.

Henry A. Hulse, a butcher of Islip, N. Y., has filed a voluntary petition in bankruptcy with liabilities of \$4,310.78 and assets of \$1,538.54.

A meat market has been opened on Bridgeport avenue, Bridgeport, Conn., by Messrs. Main & Bontillier, both of Devon.

Walter and Charles Martin will reopen a meat market on the South Side, Cresco, Iowa.

E. C. Graves' meat market at 150 Windsor avenue, Hartford, Conn., has been burglarized.

The smokehouse in Steve Palkovich's meat market at the corner of Fulton and Market streets, Gloversville, N. Y., has been damaged by fire.

Anthony F. Hogan, the well-known market man of Agawam and Concord streets, Lowell, Mass., died as the result of ptomaine poisoning.

The Carstens Packing Company has opened a meat market at 117 West Holly street, Bellingham, Wash.

James A. Barlow's grocery and poultry market in Carlisle, Ky., has been destroyed by fire.

J. Wenger has engaged in the meat and grocery business at Petaluma, Cal.

Pollack & Willman have succeeded A. G.

MONTHLY SUMMARY OF BUSINESS, 1916.

	Net sales.		Buying expense.		Selling expense.		Delivery expense.		General expense.										
	Credit.	Cash.	Total.	Salaries and wages of buying force.	Miscellaneous buying expense.	Salaries and wages of sales force.	Advertising.	Miscellaneous selling expense.	Salaries and wages of delivery force.	Miscellaneous delivery expense.	Management and office salaries.	Office supplies and ex- pense.	Insurance on stock and store equipment.	Taxes on stock and store equipment.	Losses from bad debts.	Miscellaneous general expense.	Rent.	Total expense.	Per cent. of net des.
Jan. ....	\$3,356.31	\$1,301.65	\$4,657.96	\$25.00	\$14.00	\$177.33	\$36.06	\$3.75	\$102.67	\$8.08	\$268.00	\$22.03	\$1.61	\$2.50	\$33.56	\$26.79	\$71.25	\$787.57	16.9
Feb.																			
Mar.																			
Apr.																			
May.																			
June.																			
July.																			
Aug.																			
Sept.																			
Oct.																			
Nov.																			
Dec.																			
Total.																			
Per cent. of net sales.																			

FORM A.



Fox in the meat and grocery business at Pasadena, Cal.

T. F. Saunders has purchased the stock of meats, etc., in Pasadena, Cal., from E. E. Mead.

Hoyt & Peterson have moved their meat stock to its new home in Tompson Falls, Mont.

F. A. Handy has engaged in the meat business at Nehalem, Ore.

S. B. Stark has purchased the Moore Meat Market, Abilene, Kan.

J. W. Snyder has sold out his Star Meat Market, Ewing, Neb.

M. Kline has sold out his meat market in Unadilla, Neb., to M. Lunsford.

Barnes & Rotschmitt have been succeeded in the meat business at Hallettsville, Texas, by Phillip Rotschmitt.

A meat market has been opened at Mertzon, Tex., by S. R. Bates.

J. L. Dean's meat and grocery market at Blytheville, Ark., has been purchased by J. Z. Smith.

A grocery department will be added to Santen Brothers' meat market at Kirksville, Mo.

Jacob Ziegler has sold his meat and grocery market in Prairie City, Ill., to Joseph W. Doctor.

A meat market has been opened in Fairview, Ill., by C. Barkley.

E. E. Knox has sold his meat market in Frankfort, Kan., to W. W. Barrett.

The meat market of the Union Supply Company, Mount Pleasant, Pa., has been remodeled.

George Adams has purchased the Morrison meat market at Morrison, Okla.

The Kipp Meat Market, Kipp, Kan., has been purchased by C. C. Phillips.

N. R. Day's meat market in Pomona, Kan., has been bought by G. L. Warner, of Meridian, Kan.

The Sanitary Meat Market has been opened in Billings, Okla., with E. Stimmett as manager.

J. L. Goss' meat market in Goodland, Kan., has been purchased by E. W. Sullivan.

A meat market will be opened at Arnold, Neb., by Jess Manion and V. McCants.

C. B. Stuck has sold out his meat market in Elk Creek, Neb., to H. Schellenberg.

L. Smith has purchased W. I. Ridgway's meat market in Tipytan, Cal.

C. E. Tabor's meat market in Archie, Mo., is under new management and is known as the Beager's Meat Market.

G. E. Norton has sold his market in Dublin, Tex., to Harris & Gillett.

A meat market has been opened in Murphysboro, Ill., by Harry Ruch.

John F. Bernard has opened a meat market at Holton, Kan.

The meat market in Homer, Ill., formerly conducted by Frank Royce is now operated by Theodore Laurie.

A new meat market will be opened at Grenola, Kan., by Daniel Hamilton.

The S. L. Dienlein meat and grocery market in McHenry, Ill., has been taken over by Freund & Adams.

A meat market will be opened in Nordheim, Tex., by Fred Riedel.

Andrew Olson will open a meat market in Gilbert, Minn.

A meat and grocery market will be opened at 3001 North Adams street, Everyville, Ill., by E. A. Miller.

George W. Isaac and his son, Raymond, will open a meat market at 53 Stephenson street, Freeport, Ill., under the firm name of George W. Isaac & Son.

Champney & Barnes have discontinued their meat business at New Lisbon, Wis., and Andy Farley and Charles W. Wagner have opened a market.

McDonald & Bracken succeed Sever Swanson in the Union Meat Market at Washburn, Wis.

Meinecke & Hagen, who conducted a meat and grocery market at Tomah, Wis., have dissolved partnership and the business will be continued by Fred Meinecke Company.

D. H. Fowler has sold his interest in the Schwarz & Fowler meat market at New Rockford, N. D., to his partner's brother, Milo Schwarz.

# PROFIT AND LOSS STATEMENT, JAN. 31, 1916.

			Per ct.	Per ct.
23 Sales	\$4,659.96			
24 Less sales allowances	2.00			
Net sales	\$4,657.96		100.0	
Inventory of merchandise at beginning	\$3,451.09			
25 Merchandise purchases (cost delivered at store)	2,759.67			
Deduct inventory of merchandise at closing	\$3,062.17			
Less stock depreciation	153.11			
Net cost of goods sold	2,909.06			
Gross profit from trading	3,301.70		70.9	
Buying Expense.	\$1,356.26		29.1	
Salaries and wages of buying force	\$25.00			
27 Miscellaneous buying expense	14.00			
Total buying expense	\$39.00		0.8	
Selling Expense.				
28 Salaries and wages of sales force	\$177.33			
29 Advertising	30.00			
30 Miscellaneous selling expense	3.75			
Total selling expense	\$211.08		4.5	
Delivery Expense.				
31 Salaries and wages of delivery force	\$102.67			
32 Miscellaneous delivery expense	8.08			
Total delivery expense	\$110.75		2.4	
General Expense.				
33 Management and office salaries	\$269.00			
34 Office supplies and expense	22.03			
35 Insurance on stock and store equipment	1.61			
36 Taxes on stock and store equipment	2.50			
37 Losses from bad debts	33.56			
38 Miscellaneous general expense	26.79			
39 Rent	71.25			
Total general expense	\$426.74		9.2	
Net profit from trading	\$787.57		16.9	
Income from Other Sources.				
42 Interest	\$17.09			
43 Cash discounts on merchandise purchases	6.55			
44 Rent income (net)	16.52			
45 Miscellaneous outside income	2.00		7.98	
Total net profit	\$576.67			

## FORM B.

## BALANCE SHEET, JAN. 31, 1916.

ASSETS.			
Current Assets.			
1 Cash on hand and in bank	\$1,611.67		
2 Notes receivable—Trade customers	191.84		
3 Accounts receivable—Trade customers	\$3,518.81		
4 Less reserve for bad debts	33.56		
Inventory of merchandise (at cost)	3,451.09		
5 Prepaid insurance	100.14		
6 Accrued interest receivable	.71		
Total current assets		\$8,298.67	
Fixed Assets.			
7 Store property	\$4,500.00		
8 Warehouse property	1,975.00		
Less reserve for depreciation on store and warehouse	\$6,475.00		
26.98			
9 Store equipment	\$6,448.02		
10 Office equipment	272.71		
11 Office equipment	74.37		
12 Delivery equipment	396.67		
Total fixed assets		7,191.77	
Total assets		\$15,490.44	
LIABILITIES AND CAPITAL.			
Current Liabilities.			
13 Notes payable—Trade creditors	\$1,216.50		
14 Notes payable—Banks	900.00		
15 Accounts payable—Trade creditors	3,465.72		
16 Accounts payable—Others	485.00		
17 Accrued interest payable	19.23		
18 Accrued salaries and wages	82.00		
19 Accrued taxes	7.75		
Total current liabilities	\$6,390.20		
21 Mortgages payable (warehouse)	1,250.00		
Total liabilities	\$7,640.20		
22 Proprietor's capital account	7,850.24		
Total liabilities and capital		\$15,490.44	

## FORM C.

A petition in bankruptcy has been filed by J. Teed, a butcher of Benton Harbor, Mich.

Fire of unknown origin caused damage at the Sanitary Meat Market, Mandan, N. D., estimated at \$600.

Max C. Weigel, age 34, who conducted a meat market on West Main street, Rockville, Conn., died in Hartford, Conn., after a brief illness.

William Glantz, Hugo A. Johnson, Carl G. Johnson and Carl J. Erickson, co-partners in the firm of Glantz & Johnson, meat deal-

ers at Jamestown, N. Y., filed a voluntary petition in bankruptcy. Liabilities, \$3,828.64, and assets \$555.

Charles Dinkel, Inc., Queens, N. Y., to carry on a meat business, has been incorporated with a capital stock of \$600 by F. Dinkel, E. U. Schoenberger, C. Dinkel, 576 Woodward avenue, Brooklyn, N. Y.

Louis Lyon, who for many years has been conducting a meat market at 43 North Seventh street, Allentown, Pa., died at his home in that city from a complication of diseases.

# New York Section

H. G. Clarke, of Swift & Company's produce department at Chicago, was in New York this week.

E. J. White, of Wilson & Company's beef department at Chicago, was a New York visitor this week.

Manager Jacob Maybaum of Morris & Company's branch at Gansevoort Market, has returned from his vacation.

Vice-President George B. Robbins, of Armour & Company, was a visitor to New York during the past week.

Manager Walter E. Frost, of Swift & Company's small stock department in New York, is back from his vacation outing.

Louis Joseph, head of Wilson & Company's livestock department in New York, has returned from a vacation trip along the Great Lakes.

Manager "Jack" Kerr of Armour & Company's provision department in New York is on a vacation automobile trip through New England.

Swift & Company's sales of beef in New York City for the week ending September 9, 1916, averaged as follows: Domestic beef, 12.42 cents per pound.

A petition in bankruptcy has been filed by Attorney Leon Dashew in the Federal Court against Herman F. Elsen, a retail butcher at Rockaway Beach and Edgemere, L. I. A receiver was appointed.

Richard Lilienthal, a Brooklyn butcher, died on Tuesday at his home on Bushwick avenue at the age of 54. He was born in Germany and had lived in Brooklyn for 20 years. He leaves a widow and one son.

J. F. Hawley, beef salesman for Swift & Company at Manhattan Market, has the sympathy of the trade in the loss of his wife, whose death took place last week. The funeral service on Tuesday was largely attended.

The attempt to unionize the meat shops in the Greenpoint section of Brooklyn will be opposed by the newly-formed Greenpoint Master Butchers' Association. The men threaten to strike this week if their organization is not recognized.

State Superintendent of Weights & Measures Farrell this week began prosecution of four West Side retail butchers for failing to mark net weight on containers of meat sold to customers. This follows his warning to the trade that he will prosecute all retailers not complying with the net weight regulations.

The following is a report of the number of pounds of meat, fish, poultry and game

seized and destroyed in the City of New York during the week ending September 9, 1916, by the New York City Department of Health: Meat.—Manhattan, 1,668 lbs.; Brooklyn, 11,898 lbs.; Richmond, 85 lbs.; total, 13,651 lbs. Fish.—Brooklyn, 50 lbs. Poultry and Game.—Manhattan, 26 lbs.; Brooklyn, 4 lbs.; total, 30 lbs.

A series of lectures on "Practical Chemistry of the Food Industries" is to be given at Columbia University, beginning in October, and these lectures are intended especially for men and women actively engaged in the food industries, whether in manufacturing, purchasing or sales departments. They will be given in the evening, and offer to business men and women an unusual chance to gain a more intelligent understanding of the fundamental principles of food chemistry on which their business rests.

## GLUE AN IMPORTANT PRODUCT.

(Concluded from page 17.)

works is the source of neatsfoot oil and quantities of tallow, grease and fertilizer material. The raw materials which go in great quantities from the packing house to the glue works are combinations of fats and oils, glue and mineral matter. The glue works is, strictly speaking, a disintegrator of animal tissues into their fundamental component substances. It separates the fats and oils from the glue and both of these from the mineral substance.

This mineral substance, or in other words, that part of the bones which is left in the vats after boiling, is ground and sold as steamed bone-meal for fertilizing materials. It furnishes some nitrogen and a considerable quantity of superphosphates.

One hears a great deal in the language of the trade about the jelly test of glue. Various tests are made and glues are standardized and graded according to their jelly test viscosity, color and appearance, freedom from odor, and foam, acid or alkaline reaction, etc., etc. All these tests are means which enable the manufacturer to maintain standards and grades, and to suit different kinds of glue to different purposes.

It is a mistake to think that the "stickiest" glue is the best for all purposes. A glue may have too much adhesive strength as well as too little; it all depends upon the class of work for which the glue is being used.

## A Product of Many Uses.

The Armour Glue Works, taking into consideration the various requirements of the different arts and industries, issues a tabulated list of its different grades and the main purpose to which each applies. The glue salesman is conversant with the different grades and their respective uses.

The principal use of glue is, of course, as an adhesive. But great quantities are used for sizing purposes. It has many other miscellaneous uses; for example, it stiffens the straw hats, it enters into the composition of printers' rollers, it is used as a medium in compounding paints and making calcimine, it

is used in the manufacture of textiles.

As an adhesive it is used not merely on wood but on paper, cloth and leather. Accordingly, glue is required by the makers of paper boxes, leather goods, oil cloths, musical instruments, trunks, billiard tables, corks, and scores of other things.

In a word, the almost universal use of glue makes it possible for a salesman who is selling it to adopt a very simple, neat, clean-cut principle, and that is to assume that every kind of manufacturing industry within his reach is in need of glue until he has investigated and found the contrary.

## GROWING USE OF MOTOR TRUCKS.

"The fruiterer, gardener and dairyman can market fifty miles away from home by using a motor truck as easily as eight miles with horses," says Paul V. Clodio, metropolitan distributor of the KisselKar. "This fact is an excellent illustration of what a truck will do, not only for farmers, but other classes as well. With horses these farmers were confined to a limited territory in disposing of their products. Using trucks gives them a wider area of operation, more competitive buying and hence better prices.

"And with merchants it is equally plain that trucks enrich business by extending the delivery area. The retail business man with a truck may choose his customers from many more people than formerly, because he can profitably reach a family at least four times further away than his most remote patrons of the horse haulage days.

"With good roads constantly extending, manufacturers, jobbers, supply men and others are substituting motor haulage for the railroad on short cross-country hauls. This method saves at least two handlings of the product and is quicker, safer and cleaner service.

"I have given but a few reasons why motor truck manufacture is so prosperous. People have learned that trucks make money by actually getting new trade, as well as save money through superior dependability. The first four months of 1916 showed an increase of more than 400 per cent. in the production of KisselKar trucks, and there is every indication that the same or a better rate of gain will follow in each month of the year."

## AUSTRALIAN MUTTON SUPPLY LESS.

Decrease in the mutton supply of Australia in the past three years is indicated in official reports of the number of sheep in that continent, as shown by the following figures for the various States, the census being taken on December 31 of each year:

	1913.	1914.	1915.
New South Wales..	39,701,000	36,423,000	31,335,000
Victoria .....	12,114,000	12,052,000	10,546,000
Queensland .....	21,787,000	23,130,000	16,107,000
South Australia.....	5,073,000	4,208,000	3,675,000
Totals .....	78,675,000	75,813,000	61,663,000

Packinghouse, provision, refrigeration and other machinery and equipment at second-hand. Buy it or sell it through The National Provisioner's "Wanted and For Sale" department on page 48.

# HEARN

West Fourteenth St., New York

# NO MEATS BUT EVERYTHING

# GROCERIES IN DRY GOODS

# LIQUORS AND APPAREL

## HIDE AND SKIN MARKETS.

(Continued from page 30.)

bid as to descriptions and up to 25c. demanded for the light average Montana skins.

Later.—Kansas City packer sheepskins brought \$1.52½ and lambs \$1.60, Chicago freight. Omaha kill of sheepskins held at \$1.55, the last price paid. Lambskins, \$1.65.

### New York.

**PACKER HIDES.**—The trading in the local market during the past week was rather small in comparison with the business done in the Chicago market. Packers are well sold up to the first of September on practically all descriptions with the exception of spready native steers. These are held by all packers at 27 and 27½c. for June to Januarys. One killer reports selling three cars February and Marchs at 22½c. and one car Aprils at 24¼c. Another packer claims to have declined 22¾c. for February and Marchs and is firmly asking 23c. for business. Aprils are held at 25c., but possibly bids of 24½c. if made would not be declined. Some inquiries are reported made for September native steers which are held at 26c. with buyers' ideas not over 25½c., which was last paid for August natives. August brands are considered nominal at 21½@23c. for butts; Colorados, 22@22½c. Cows, all weights, are quoted at 23½@24c. and native bulls 21½@22c. last paid. Small packer hides quiet. Nothing going on in hides of this description. Principal buyers are decidedly uninterested except at low rates. Native cows, all weights, are considered nominal at 22½c. last paid; some sellers are quoting August hides at 23c. Native bulls are nominally quoted at 21½c.

**COUNTRY HIDES.**—The market is beginning to show some firmness. Buff hides are in some inquiry and sellers are asking 19¾@20c. for business in short haired Pennsylvania and Ohio selections; the inside was the last reported paid figure for Pennsylvania hides; Ohio sellers refuse to consider under 20c. and some are even talking 20½c. for short haired stocks running well No. 1s. Extremes are also in a firmer tone and quoted at 21½@22½c. as to quality; all long haired hides can be obtained as low as 20½c., however. There is nothing new to report in southern hides. Sellers are asking 19@19¼c. flat basis for far southern and 20c. asked for northern. Extremes range from 20½@22c. as to section. Canadian and New England hides are dull. Sellers are offering hides rather freely at a range of prices. All weights are quoted from 19@19¼c. flat basis for business, although some sellers are talking as high as 20c. for anything running rather choice. New York state hides are nominally quoted at 19@19¼c. flat basis.

**CALFSKINS.**—The packer and city calfskin market is steady and unchanged. Accumulations are light with last trading at full quotations. One dealer sold a car of 5 to 7s at \$3.15; 7 to 9s at \$3.65 and 12 to 17 lb.

kips at \$4.90. As far as can be learned no 9 to 12s were included in this trade, but are nominally quoted at \$4.15@4.20. Country calfskins are steady, but there have been no sales for some days, hence prices are more or less nominal at \$2.75@2.85; \$3.25@3.35, and \$3.75@3.85.

**DRY HIDES.**—During the period under review the movement on common varieties which started just before Labor Day is estimated to be about 80,000 hides with a clean up of about 30,000 Bogotas at 33c. on the basis of mountains; 10,000 Puerto Cabellos and La Guayras at 32½c., and 12,000 Central Americans at 32c. Along with the clearance some 5,000-6,000 flint dry San Domingos sold at 27c. and kips at 24c. Also about 3,000 dry salted Peruvians of various weights with prices ranging from 23@26c. A lot of 1,000 dry salted Rio Haches sold at 25½c. About all flint dry Peruvians have changed hands at 32c. One importer reports selling 3,000 Orinocos at 33½c., which registers ½c. advance over previous trading. No trading is noted in Guatemalas which are on hand and are being held up to 34c. for cities and 33c. for countries, which is ½c. above last paid rates. At the present writing stocks on hand are small with negotiations reported pending on late arrivals of Central Americans; buyers willing to do business on the old basis of 32c. for Central Americans, but most sellers are talking ½c. advance over prior trading. The River Plate market is firm and active with a sale reported of 10,000 Cordobas, 10 to 11 kilos, all winter haired, at 36c. Some sellers are talking these hides as high as 37@38c. An offering is noted of 2,000 Cordoba kips, 5 to 6 kilos, at 44½c., with last sales at 44 and 44¼c. Brazils are in good demand and considered firm at 38c. for light average Cearas and 34¼c. for Bahia Minas. A sale of 3,500 Bahia Minas was made at 34¼c. Most sellers have very little of these hides to offer on spot as European buyers are reported operating in the primary market at extremely higher prices than importers can realize in the domestic market. Ten thousand dry and dry salted African Cape hides, averaging 10 lbs.; kips 8 lbs., and calf 4 lbs., at 18½ pence for drys and 17½ pence for dry salted c. i. f. basis New York.

**WET SALTED HIDES.**—Further activity has developed in the frigorifico market during the past week at higher prices than last realized from European buyers. Sansinena reports selling their entire month of September kill, estimated to be about 25,000, at 24½c.; 10,000 Armour steers sold at the same figure and 10,000 La Blanca steers at 24¾c.; all of the above for Liverpool. Several sales have been reported going to Stockholm consisting of 4,000 Armour steers at 24¾c. and 4,000 Argentina steers at 24¼c. Late in the week a sale was made to Europe of some 8,000 La Plata steers, last half of August salting, at 25¼c. while some quarters state that this price should be 24¾c. The former price is more likely correct as freight rates from B. A. to New York have been advanced fully 5 per cent. and the exchange

dropped in the past week of fully 1½c. La Plata is now offering 4,000 early September steers at 26c. A lot of about 2,500 Saladero Evril cows sold on spot at 23c. and 2,000 Montevideo kips, 20 to 25 lbs. average, sold at 24¼c. on spot. Brazils were active with a sale noted of 1,000 Bahias around 21½c. for export. Also 2,000 Rio Janeiros sold at 15¼c. c. i. f. New York, but since this sale has been made importers have firmed up in their views and are quoting these hides at 16@16½c. Some trading was effected on late arrivals of Mexicans with a sale noted of 7,000 to 8,000 Vera Cruz, etc., at the unchanged price of 20½c. and 1,600 Guadala-jaras at 22½c. A lot of 300 Tampicos sold at 20½c. Some 1,200 Vera Cruz, etc., consisting of straight city rastro hides sold around 22½c. Cubans are somewhat firmer. About 1,000 Havana regulars, 40 to 45 lbs. average, sold at 19¾c. Havana city packers are nominal at 21¼c. A lot of 500 Cuban Nuevitas of 43 lb. average sold at 19¼c.

### Boston.

The hide market remains quiet in Boston. Strictly short haired stock is held firmly. Prices on extremes range from 21½@22½c. according to quality, with buffs at 19½@20½c. Very few sales are reported. The southern market is quiet, with quotations of 19½@20c. for 25-60s, according to the section. The New England hide market is quiet with offerings light. Extremes are held at 21@21½c., and all weights at 19@20c. These same quotations hold true in the Canadian market.

Only small offerings of calfskins are being made in Boston. A good selected skin, closely trimmed, weighing 4 to 5 lbs., is being offered at \$2.50, while other more common offerings are being quoted at \$2.40; 5 to 7s are held at \$2.90; 7 to 9s, \$3.40, and 9 to 12s, \$3.90.

## FOREIGN COMMERCIAL EXCHANGE.

New York, September 15.—Foreign commercial exchange rates, as far as quoted, are:

London—	
Bankers' 60 days.....	4.71½
Cable transfers.....	4.76½
Demand sterling.....	4.75½
Commercial bills, sight.....	4.75½
Commercial, 60 days.....	4.70½
Commercial, 90 days.....	4.68½
Paris—	
Commercial, 90 days.....	No quotations.
Commercial, 60 days.....	No quotations.
Commercial, sight.....	5.86
Bankers' cables.....	5.84½
Bankers' checks.....	5.85½
Berlin—	
Commercial, sight.....	No quotations.
Bankers' sight.....	69½
Bankers' cables.....	69½
Antwerp—	
Commercial, 60 days.....	No quotations.
Bankers' sight.....	No quotations.
Bankers' cables.....	No quotations.
Amsterdam—	
Commercial, sight.....	40½@40¾
Commercial, 60 days.....	40½
Bankers' sight.....	40½@40¾
Copenhagen—	
Checks.....	27.70



# NEW YORK MARKET PRICES

## LIVE CATTLE.

Common to choice steers.....	\$8.50@10.30
Oxen and stags.....	—@—
Bulls.....	4.90@ 6.35
Cows.....	2.75@ 6.65

## LIVE CALVES.

Live calves, com. to prime, per 100 lbs..	9.00@13.50
Live calves, grassers.....	5.50@ 7.00
Lives calves, yearlings.....	5.00@ 5.50
Live calves, culls, per 100 lbs.....	7.00@ 8.50

## LIVE SHEEP AND LAMBS.

Live lambs, good to prime.....	10.00@12.40
Live lambs, yearlings.....	—@—
Live lambs, culls.....	8.00@ 9.00
Live sheep, ewes.....	4.50@ 7.50
Live sheep, culls.....	@ 4.00

## LIVE HOGS.

Hogs, heavy.....	@11.50
Hogs, medium.....	@11.50
Hogs, 140 lbs.....	@11.50
Pigs.....	@10.50
Roughs.....	@ 9.75

## DRESSED BEEF.

### CITY DRESSED.

Choice native heavy.....	15½@16
Choice native light.....	15 @16
Native, common to fair.....	13½@14

### WESTERN DRESSED BEEF.

Choice native heavy.....	@16
Choice native light.....	15 @16
Native, common to fair.....	@15
Choice Western, heavy.....	@14½
Choice Western, light.....	@14
Common to fair Texas.....	12½@13
Good to choice helters.....	14 @14½
Common to fair helters.....	@12½
Choice cows.....	@12
Common to fair cows.....	@11½
Fleshy Bologna bulls.....	10 @10½

## BEEF CUTS.

	Western.	City.
No. 1 ribs.....	@20	@20
No. 2 ribs.....	@18	@18
No. 3 ribs.....	@14	@16
No. 1 loins.....	@20	@23
No. 2 loins.....	@18	@20
No. 3 loins.....	@14	@14
No. 1 hinds and ribs.....	@18	@19
No. 2 hinds and ribs.....	@17	@18
No. 3 hinds and ribs.....	@16	15 @16
No. 1 rounds.....	14½@16	@15
No. 2 rounds.....	13½@15	@14½
No. 3 rounds.....	12 @13	@14
No. 1 chucks.....	12½@13½	@13½
No. 2 chucks.....	10½@11½	@13
No. 3 chucks.....	8½@10	@12½

## DRESSED CALVES.

Veals, city dressed, good to prime, per lb..	@21
Veals, country dressed, per lb.....	@18
Western calves, choice.....	@18½
Western calves, fair to good.....	@16½
Grassers and buttermilks.....	@13½

## DRESSED HOGS.

Hogs, heavy.....	@14½
Hogs, 180 lbs.....	@14½
Hogs, 160 lbs.....	@13½
Hogs, 140 lbs.....	@15½
Pigs.....	@16½

## DRESSED SHEEP AND LAMBS.

Spring lambs, choice.....	@19
Lambs, choice.....	@18
Lambs, good.....	@10½
Lambs, medium to good.....	@16
Sheep, choice.....	@15
Sheep, medium to good.....	@14
Sheep, culls.....	@12½

## PROVISIONS.

### (Jobbing Trade.)

Smoked hams, 10 lbs. avg.....	@20½
Smoked hams, 12 to 14 lbs. avg.....	@19½
Smoked hams, 14 to 16 lbs. avg.....	@19½
Smoked picnic, light.....	@15
Smoked picnic, heavy.....	@14½
Smoked shoulders.....	@15
Smoked bacon, boneless.....	@20
Smoked bacon (rib in).....	@18
Dried beef sets.....	@28½
Smoked beef tongue, per lb.....	@24½
Pickled bellies, heavy.....	@16

## FRESH PORK CUTS.

Fresh pork loins, city.....	@25
Fresh pork loins, Western.....	@23
Frozen pork loins.....	@19
Fresh pork tenderloins.....	@25
Frozen pork tenderloins.....	@24
Shoulders, city.....	@17
Shoulders, Western.....	@16
Butts, regular.....	@18½
Butts, boneless.....	@21
Fresh hams, city.....	@20
Fresh hams, Western.....	@19
Fresh picnic hams.....	@15

## BONES, HOOFS AND HORNS.

Round shin bones, avg. 45 to 50 lbs. per 100 pcs.....	75.00@ 80.00
Flat shin bones, avg. 40 to 45 lbs. per 100 pcs.....	65.00@ 70.00
Black hooft, per ton.....	@ 30.00
Striped hooft, per ton.....	@ 40.00
White hooft, per ton.....	60.00@ 65.00
Thigh bones, avg. 85 to 90 lbs. per 100 pcs.....	85.00@ 90.00
Horns, avg. 7½ oz. and over, No. 1's.....	125.00@150.00
Horns, avg. 7½ oz. and over, No. 2's.....	@ 75.00
Horns, avg. 7½ oz. and over, No. 3's.....	@ 50.00

## BUTCHERS' SUNDRIES.

Fresh steer tongues, L. C. trim'd.....	@24c. a pound
Fresh steer tongues, untrimmed.....	@16c. a pound
Fresh cow tongues.....	@15c. a pound
Calves' heads, scalded.....	@65c. apiece
Sweetbreads, veal.....	@85c. a pair
Sweetbreads, beef.....	@30c. a pound
Calves' livers.....	@25c. a pound
Beef kidneys.....	@15c. a pound
Mutton kidneys.....	@10c. a pound
Livers, beef.....	@12c. a pound
Oxtails.....	@10c. apiece
Hearts, beef.....	@ 9c. a pound
Rolls, beef.....	@30c. a pound
Tenderloin, beef, Western.....	@35c. a pound
Lambs' fries.....	@10c. a pair
Extra lean pork trimmings.....	@17c. a pound
Blade meat.....	@15c. a pound

## BUTCHERS' FAT.

Ordinary shop fat.....	@ 3½
Suet, fresh and heavy.....	@ 6
Shop bones, per cwt.....	25 @35

## SAUSAGE CASINGS.

Sheep, imp., wide, per bundle.....	•
Sheep, imp., medium wide, per bundle.....	•
Sheep, imp., medium, per bundle.....	•
Sheep, imp., narrow, per bundle.....	•
Hog, free of salt, tes. or bbls., per lb., f. o. b. New York.....	@50
Hog, extra narrow selected, per lb.....	@70
Hog, middles.....	@10
Beef rounds, domestic, per set, f. o. b. New York.....	@13
Beef rounds, export, per set, f. o. b. New York.....	@20
Beef hungs, piece, f. o. b. New York.....	@15
Beef middles, per set, f. o. b. New York.....	@45
Beef weasands, No. 1s, each.....	@ 7½
Beef weasands, No. 2s, each.....	@ 4
Beef bladders, small, per doz.....	@75

\*Owing to unsettled war conditions reliable sheep casing quotations cannot be given.

## SPICES.

	Whole.	Ground.
Pepper, Sing., white.....	22½	24½
Pepper, Sing., black.....	18½	20½
Pepper, Penang, white.....	21½	23½
Pepper, red.....	22	25
Allspice.....	6	8½
Cinnamon.....	21	25
Coriander.....	7½	9
Cloves.....	19	22
Ginger.....	18	21
Mace.....	65	69

## SALTPETRE.

Refined.....	24½@25½
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## GREEN CALFSKINS.

No. 1 skins.....	@ .40
No. 2 skins.....	@ .38
No. 3 skins.....	@ .28
Branded skins.....	@ .32
Ticky skins.....	@ .32
No. 1 B. M. skins.....	@ .38
No. 2 B. M. skins.....	@ .21
No. 1, 12½-14.....	@4.30
No. 2, 12½-14.....	@4.05

No. 1 B. M., 12½-14.....	@4.05
No. 2 B. M., 12½-14.....	@3.45
No. 1 kips, 14-18.....	@4.55
No. 2 kips, 14-18.....	@4.50
No. 1 B. M. kips, 14-18.....	@4.30
No. 2 B. M. kips.....	@3.25
No. 1 heavy kips, 18 and over.....	@5.00
No. 2 heavy kips, 18 and over.....	@4.75
Branded kips.....	@3.40
Heavy branded kips.....	@4.40
Ticky kips.....	@3.40
Heavy ticky kips.....	@4.40

## DRESSED POULTRY.

### TURKEYS.

Fresh killed, dry-packed—	
Spring broiling, 2½ to 3 lbs., each.....	@35
Old hens, dry-pkd., avg. best.....	@28
Old toms, scalded.....	@26
Dry-picked, old toms.....	@28

### CHICKENS.

Fresh, dry-packed, 12 to box—	
Western, milk fed, 17 lbs. to doz. and under, lb.....	@30
Western, milk fed, 18 to 24 lbs. to doz.....	@30
Western, milk fed, 25 to 30 lbs. to doz.....	@29
Western, milk fed, 31 to 36 lbs. to doz.....	@29
Western, corn fed, 17 lbs. and under to doz.....	@28
Western, corn fed, 18 to 24 lbs. to doz.....	@28
Western, corn fed, 25 to 30 lbs. to doz.....	@27
Western, corn fed, 31 to 36 lbs. to doz.....	@27

Fresh soft-meated, barrels—	
Phila. and L. I., fancy, 3 to 4 lbs. to pair.....	@32
Va., milk fed, 3 to 4 lbs. to pair.....	@28
Western, dry-pkd., 3 to 4 lbs. to pair.....	@27
Western, corn fed, 4 lbs. to pair.....	@25

Fowls—12 to box, dry-packed—	
Western, boxes, 60 lbs. and over to doz., dry pkd.....	@23
Western, boxes, 48 to 55 lbs. to doz., dry-picked.....	@22
Western, boxes, 43 to 47 lbs. to doz., dry-picked.....	@21
Western, boxes, 38 to 42 lbs. to doz., dry-picked.....	@19½
Western, boxes, 30 to 35 lbs. to doz., dry-picked.....	@18½
Western, boxes, under 30 lbs. to doz.....	@18

Fowl—Barrels, feed—	
Western, boxes, 5 lbs. and over.....	@22½
Western, boxes, 4 to 4½ lbs. dry-picked.....	@22
Old Cocks, per lb.....	@15

Fowl—bbls.—	
Southern and S. W., large.....	@21

Other Poultry—	
Squabs, prime, white, 10 lbs. to doz., per doz.....	5.25@5.50
Long Island fresh ducklings.....	@21
Geese, Western, fancy.....	—@—

## LIVE POULTRY.

Chickens.....	22½@23
Fowls.....	20½@21
Roosters, old.....	—@—
Turkeys.....	—@—
Geese, per lb.....	—@—

## BUTTER.

Creamery extra (92 score).....	33 @33½
Creamery, higher (scoring lots).....	33½@34½
Creamery, Firsts.....	32 @33½
Process, extras.....	29 @29½
Process, Firsts.....	27½@28

## EGGS.

Fresh gathered, extras.....	36 @37
Fresh gathered, extra firsts.....	34 @35
Fresh gathered, firsts.....	32 @33
Fresh gathered, seconds.....	29½@31
Fresh dirties, No. 1.....	26½@27½
Fresh chex, prime to choice.....	24½@25

## FERTILIZER MARKETS.

### BASIS NEW YORK DELIVERY.

Bone meal, steamed, 3 and 50, per ton.....	@30.00
Bone meal, raw, per ton.....	@35.00
Dried blood, high grade.....	@ 5.40
Nitrate of soda—spot.....	@ 3.00
Bone black, discard, sugar house del. New York.....	nom. 21.00
Ground tankage, N. Y., 9 to 12 per cent. ammonia.....	3.45 and 10c.
Garbage tankage.....	@ 7.00
Fish scrap, dried, 11 p. c. ammonia and 15 p. c. bone phosphate, delivered, Baltimore.....	3.50 and 10c.
Foreign fish guano, testing 15@14% ammonia and about 10% B. Phos. Lime.....	—@—
Wet, acidulated, 7 p. c. ammonia per ton, f. o. b. factory (85c. per unit available phos. acid).....	nom. \$2.70 and 85c.
Sulphate ammonia, for shipment, per 100 lbs., guar. 25%.....	@ 3.85
Sulphate ammonia, per 100 lbs., spot, guar., 25%.....	@ 3.85

1/2  
1/4

1/2

0

1/2  
1/2  
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5

5